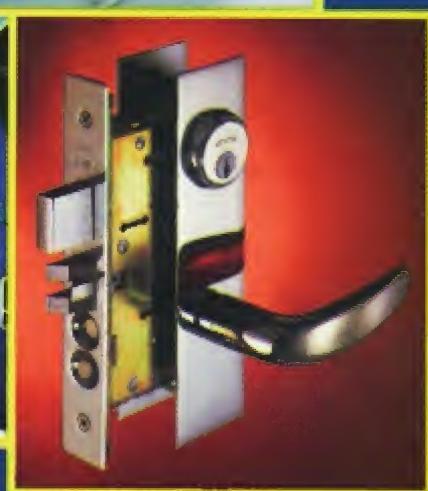
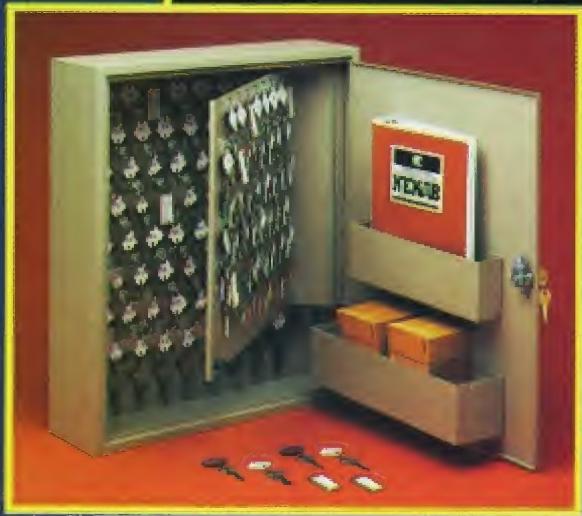


# The National Locksmith®

July 1988

## SHOW STOPPERS



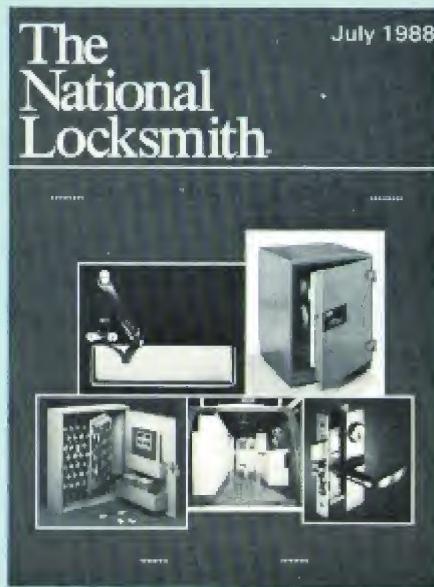
ALOA

The National Locksmith • July 1988 • Volume 59, Number 7

# Contents

## Features

|           |                             |            |                              |
|-----------|-----------------------------|------------|------------------------------|
| <b>26</b> | Lori Door Hardware          | <b>62</b>  | Management For More Business |
| <b>30</b> | American Lock Plans Future  | <b>67</b>  | Fiberoptics By Olympus       |
| <b>34</b> | Servicing The Ford Probe    | <b>68</b>  | Booth Numbers & Showstoppers |
| <b>42</b> | Chicago Double-Sided Keys   | <b>105</b> | A New Digital Caliper        |
| <b>48</b> | Decoding The Corbin Padlock | <b>111</b> | Three Short Goodies          |
| <b>50</b> | Maintaining Adams Rite      | <b>116</b> | Masterkeying Corbin Locks    |
| <b>54</b> | Locking With Electricity    | <b>128</b> | 25 Ways To Improve Business  |
| <b>59</b> | Locksmith Price Survey      | <b>130</b> | Honda Civic Codes            |
| <b>60</b> | New Chrysler Locks          |            |                              |



### On The Cover

Products from the following companies are pictured on our cover: (clockwise from bottom left) HPC, Inc.; LCN Closers; Schwab Safe Co.; Arrow Lock Co.; Adrian Steel Co. All of these companies will be exhibiting at the 1988 ALOA Show.

**Click on the article you wish to read**

## Departments

5 Commentary 6 Letters 11 Technitips 18 Newsmakers  
122 Business Briefs 149 Shop Talk

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# Commentary

## Don't Be A Stranger

Time has a way of passing before us very quickly. Here we are and July is already upon us bringing warm weather and summer time activities. On the Fourth we will celebrate the birth of our great country. We will mark this occasion with cookouts, lots of fireworks and a Monday holiday. It is an appropriate time to recall how lucky we all are to be living in the United States of America. All over the globe people look to us as the standard bearers for the free world. No one gets something for nothing in this country. But if you work harder and smarter than the next guy your opportunity for success is unlimited.

Another celebration will take place during the first week of July. Locksmiths from all over the world will gather in Las Vegas, Nevada to take part in training classes and to view the exhibits. What do you think is the most important part of the annual ALOA convention? Is it the classes where you can learn new skills to help boost your career? Is it the exhibits where you can meet the manufacturer and examine new products?

These, of course, are vital parts of the conference. There is so much to see and learn at the convention! However, I think the most important feature of the event is to celebrate the locksmith profession. After all, how often can you walk into a room and find a couple thousand other locksmiths to talk to?

In my opinion, the most enjoyable aspect of the ALOA show is being able to meet and visit with so many locksmiths all at once. It is the one annual event where I am sure to meet up with my industry friends from all over the country, to say nothing of Australia, Italy, England and many other places. I have found that when you put two locksmiths in a room you get three opinions. When hundreds come together at once, you can feel electricity in the air. So make sure you come to the convention to enjoy the classes and exhibits. But most of all come and participate in the fellowship and good cheer that ALOA will bring to Las Vegas.

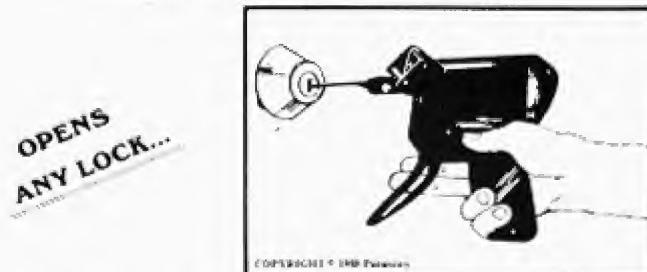
Please be sure to stop by and see *The National Locksmith* at booths 643 and 645. I will be there looking forward to meeting each of you. And, of course, all your favorite authors will be there too. Don't be a stranger!

\*\*\*\*\*

Reproduced below is a portion of an advertisement which ran in Income Opportunities magazine. Thanks to several readers for sending me the ad. The Panasony Company is trying to sell this pick gun to anyone with a few bucks. Their suggestion is that people buy them to resell the pick guns to: "service stations, repair shops, car rentals, car dealers, parking garages, locksmiths, taxi companies, truck fleets, police departments, towing companies, hardware stores and parking valets."

### KEY TO RICHES!!!

*Amazing New Panasony Key Gun®*



### WITHOUT A KEY!!!

Isn't it nice of them to include locksmiths on their list? Unfortunately, this sort of thing has been going on for years. For at least ten years *The National Locksmith* has received ads like this one from concerned locksmiths. It is certainly irresponsible for this company to be selling pick guns to the public. Perhaps one day someone will use one of their products to commit a crime. I just hope the victim of that crime sues them for everything they are worth.

\*\*\*\*\*



*Marc Goldberg*  
Editor/Publisher

July 5

# Letters

## Comments, Suggestions and Criticisms

**The National Locksmith** is interested in your views. We do reserve the right to edit for clarity and lengths. Please address your comments, praise, or criticism to: Editor, **The National Locksmith**, 698 Bonded Parkway, Streamwood, IL 60107.

### Action Requested Against Slim Jim Sales

Pardon the old hat, but it seems that the subject of Slim Jims is getting more and more prevalent in this area again. I enclosed an ad which appeared in Sunday's Washington Post in the flyer added as a supplement to the Post by Hi-Gear Discount Auto Parts.

I went to see them and they told me "Man, I just work here. You'll have to contact the main office."

I believe a letter from you on your letterhead may do more good than my complaining. What do you say?

John Richmeier  
Maryland

*Editor's Note: Mr Richmeier sent us a clipping showing that Hi-Gear is selling a nifty collapsible Slim Jim to the public. I believe the best response to them would be for locksmiths to write to them (or call) and complain. The company has many stores in Maryland and Virginia. If enough of you (espe-*

*cially from that area) complain, maybe they will stop this.*

*You can contact Hi-Gear Discount Auto Parts at: (301) 336-3000, 110 Ritchie Rd., Capitol Heights, MD 20743. I'm sure they'll be happy to hear from several thousand of you.*

### Locksmith Tired Of Non-Paying Customers

I am a member of ALOA, have been for a few years, and I along with fellow locksmiths are unwillingly being stung by shrewd tactics that are being played out by the public. Some of the lines that they use are, "I'm sorry but I don't have the authority to pay you. I can't seem to find my check book so could you please bill me?" Customer checks his pockets and says, "I can't seem to find my billfold."

I can only speak for myself, however I know for a fact that the financial burden that is being placed on me is being felt by others as much as ten times greater if not more. Due to the fact that I belong to the Locksmith Association of Rhode Island, I know, by talking to other members, that we are tired of placing ourselves in a position of servitude without reward for our efforts.

I propose to place wording on my invoice which calls for the customer to

pay interest on overdue balances. Also that they must pay my legal fees if I have to go to court to collect. I have proposed this to NEBS.

After you fill out the invoice with the itemized list of your charges, fill in the billing rate along with the interest rate you will charge. You must keep in mind that you can charge this only one time, so think about the amount of time you spend at your computer creating a new customer account, filling out statement forms, postage, stuffing them in envelopes along with their postage, and storing that one invoice charged to an unknown.

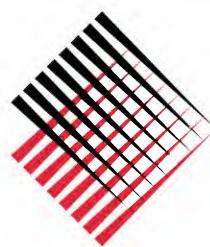
When they hand you payment by check have them sign the invoice. If they back down, more than likely the check is non-negotiable. When payment is made in cash, you can cross out any part regarding payment.

Albert Gifford  
Rhode Island

*Editor's Note: If you are constantly getting "stuck" for payment, then you must be doing something wrong. By all means, add new wording to your invoice. Even if you must pay a quick printer to do it for you.*

*But determining the method of payment should be done before you do the work, not after. If you are not satisfied*

*Continued on page 8*



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for more  
information

*Continued from page 6*

*that you will be paid, why do the work? If other locksmiths have solved this problem, please write and tell us how you did it.*

### **Shop Talk Reader Adds New Information**

In the December 1987 issue of *The National Locksmith* in the *Shop Talk* section you discussed modifying an EA-27 (X-14-F) key blank for use in some imported lock cylinders, (i.e., overhead garage doors, and recently some Lori rim cylinder). This has always been a problem because as you said the best solution was to modify a standard EA-27 to fit.

I have learned that Ilco now has a key blank #X-104-L available to solve this problem. They also have come out with another new blank 1521 to fit the new Eagle military padlocks.

I hope this information will be of help to Donald Trull and all others who have had these problems.

Art Tessin  
Michigan

### **Written Tribute To Lee Rognan**

I assume you have been informed concerning the untimely death of Joe W. Jackman, CML last Friday. It was a tragic loss for the entire industry as Joe led the association through two years of major growth and change. He will be missed.

Here is something I felt strongly moved to write while on a flight from Atlanta to Newark on the weekend that Lee Rognan died:

#### **"I REMEMBER MOMMA..."**

*She was a strong lady, iron willed, but tempered with a heavy dose of Southern gentility reflecting her birth in a small south Georgia town. Despite her many years as a resident of upper New York state, she never lost her southern accent, often using it as a tool to calm an adversary. However, much like Scarlett of Gone With the Wind fame, she was more than capable of removing the mantle of southern aristocracy and donning the gloves of combat whenever the situation called*

*for it.*

*As the lifelong helpmate of one of our Founding Fathers, she attended the birth of our association on her own kitchen table, serving as the midwife, as it were. From typing the "bulletin" which was to become today's award winning Keynotes and hand addressing dues bills on that same kitchen table, she went on to become the first Executive Director of the ALOA, a post which she held for some thirteen years.*

*Often criticized, but always respected, she protected "her child from the kitchen" with the ferocity of a mother lion protecting her cubs. Her twinkling eyes, ready smile, and carefully groomed appearance will long be remembered by all who were privileged to spend time with her at the many trade shows, conventions, and regional functions she and her husband attended right to the end.*

*Yes...I remember "Momma Lee" Rognan and her husband Bob with the knowledge that my industry and I are better for knowing them both. Now they are once again together. God Bless.*

Breck Camp  
Georgia



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# Enter the 1988 Technitips Contest

\$\$\$ Thousands and thousands in cash and prizes! \$\$\$

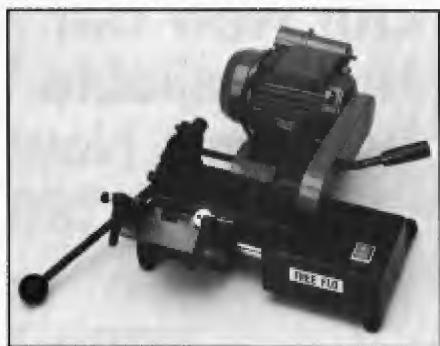
## HPC Club



### First Prize

Reproduces a wide range of dimple and milled keys. You'll be able to duplicate many high security keys for high profits.

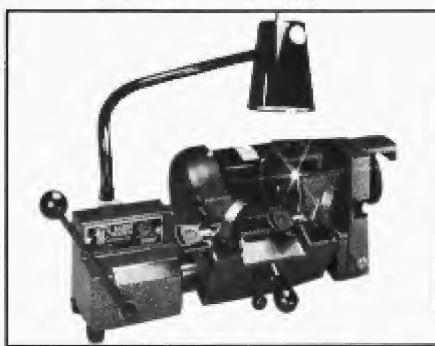
## The Free Flo



### Second Prize

Designed to cut Medeco® and Emhart® keys.Duplicates a Medeco® key very quickly and accurately. Will also cut regular cylinder keys. By Fulton Lock.

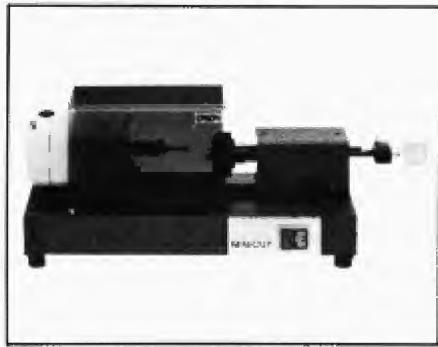
## Saber Tooth



### Third Prize

A fast semi-automatic duplicator featuring carbide cutter, full 1/3 hp motor, 2400 rpm. Working lamp and deburring brush are standard. From The Locksmith Store.

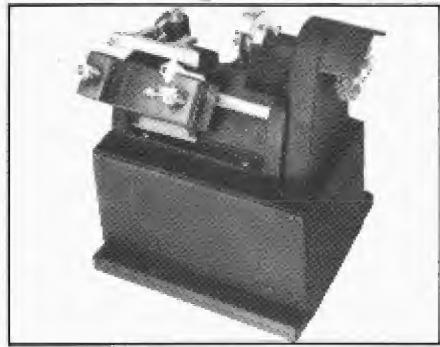
## Ilco KD94



### Fourth Prize

Cuts the 1137 tubular key, brass or steel accurately and quickly. Features include large chuck to hold standard size key heads, easily adjustable.

## 9150 Speedex



### Fifth Prize

The Speedex has been transformed from the old stand-by to the machine for today's needs. Features double sided jaws. From HPC.

## \$100.00 Cash



### Sixth Prize

Everyone can use a few extra dollars! This prize will brighten your day...and fatten your wallet.

## Contest Rules

All you need to do to enter is submit a tip, covering any aspect of locksmithing to *The National Locksmith*. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Why not write it down and submit it to: Steve Spiwak, Technitips' Editor, *The National Locksmith*, 698 Bonded Parkway, Streamwood, IL 60107.

Tips submitted to other industry publications will not be eligible! So get busy and send in your tips today! You may win cash, merchandise, or even one of several key machines! At the end of the year, we choose the winners of the above prizes.

Last year dozens of people walked off with money and prizes. Wouldn't you like to be one of the prize winners for 1987? Enter today! It's a lot easier than you think!

## Every Tip Wins 'Locksmith Bucks!'

Yes, every tip published wins a prize. But remember, you must submit your tip to *The National Locksmith* exclusively. Each and every tip published in Technitips wins you \$20.00 in Locksmith Bucks! Use this spendable cash toward the purchase of any books or merchandise from *The National Locksmith*. You also receive a Bonded Locksmith bumper sticker, decal and patch. Plus you are now eligible for the really big prizes!

## Best Tip of the month prizes!

If your tip is chosen as the best tip of the month, you will win \$50.00 in cash as well as \$30.00 in Locksmith Bucks! Plus you will receive a quartz Locksmith watch, a Bonded Locksmith bumper sticker, decal, patch and a Locksmith Cap. Plus, you may win one of the great prizes pictured above.

# Technitips

Helpful Hints from Fellow Locksmiths



Send me your Technitips.  
Who knows, you may be  
our next winner! c/o The  
National Locksmith, 698  
Bonded Parkway,  
Streamwood, IL 60107.

by Robert Sieveking

*There are some really new ideas this month. Some novel and some unique. All are evidence of the special problems and ingenious solutions that locksmiths think up on a daily basis. Each solution is a personal accomplishment that allows the locksmith to grow in his trade and in his own self esteem.*

*The apprentices always want to know, "What's the trick? How did you do that so fast?" or "Show me how you*

*did that." They want to know what the "tip" is that makes something work so easily for you and it seems so hard or takes so long for them. Here's the tip. "There is no trick." Confidence, gained through experience and hard work is what makes a job easy. Learning all the tricks will not make you a master locksmith. Learning how to think through a problem, using your experience and knowledge to find a solution that is your own, that's the tip. These Technitips are solutions that worked. They should get you thinking about how you could apply the principles and concepts to some of your daily challenges.*

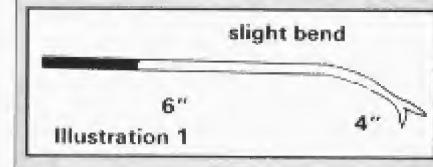
*Congratulations to all, whose tips were printed this month, and thank you to all those who sent in tips. Choos-*

*ing the best Technitip this month was a real challenge.*

## July's Best Tip

I have found a quick and easy method of opening cars and trucks with vertical lock rods and lift up handles. The tool I use is a slightly modified "fondue fork." (See illustration 1.)

Raise the lift handle to find the opening approximately in line with the vertical lock rod. Insert the fork



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tool through the hole and locate the button rod. Allow the handle to drop back down. The "V" tip of the fork will straddle and grip the rod. Apply slight forward pressure on the fork and tilt the tip upward to raise the button, unlocking the door. I have tried this method with great success on many models of Toyota, Nissan/Datsun, Ford and the '88 Tempo and Topaz.

Troy Sullivan  
Alberta, Canada

\*\*\*\*\*

This tip concerns an easy method of retrieving parts lost inside a hollow metal door.

Recently I was called out to repair a Von Duprin model #99 emergency exit device, in a hollow metal door. When I got there, I discovered that the mounting screws had worked loose and fallen down inside the door. The upper latch case was free in the door, preventing it from latching properly. As I removed the latch case mounting bracket to replace the lost screws (see illustration 2), the bracket decided to join its friends (the lost screws) at the bottom of the door.

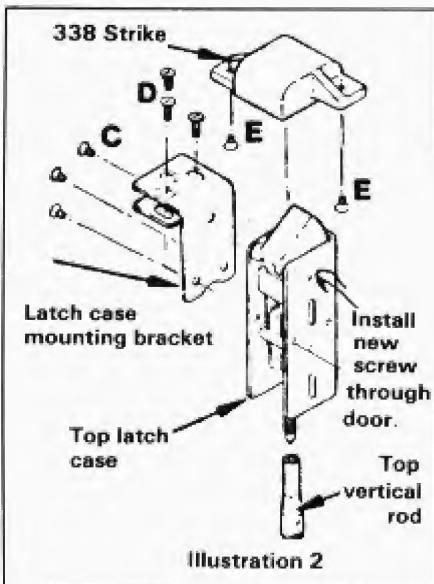


Illustration 2

I tried to retrieve the bracket with a magnet, with no success. Noticing a kick plate at the bottom of the door, I decided to drill a  $2\frac{1}{8}$ " hole under the plate to retrieve the lost parts. The kick plate was removed and the door was drilled using a hole saw. After removing the errant lock parts, the repairs were completed and the kick plate reinstalled to conceal the access hole at the

bottom of the door.

Larry Teal  
New Mexico

\*\*\*\*\*

The following is a tip that will make servicing lockouts on light and heavy-duty deadbolts that are equipped with high security cylinders much easier. If the actuator has become disconnected or broken, or the key lost to a deadbolt using a high security lock cylinder, and access is required to a space served

by only one entrance, the only option is to defeat the lock by drilling. This method allows the locksmith to open the lock without destroying the lock cylinder, usually the most expensive part of the lock.

Simply drill the face of the deadbolt as shown in illustration three and remove the shaded portion of the face of the deadbolt housing. The cylinder can now be removed without damage, and the lock opened with a screwdriver. A new deadbolt can be installed using the same high security cylinder, after repair or making a key by disas-



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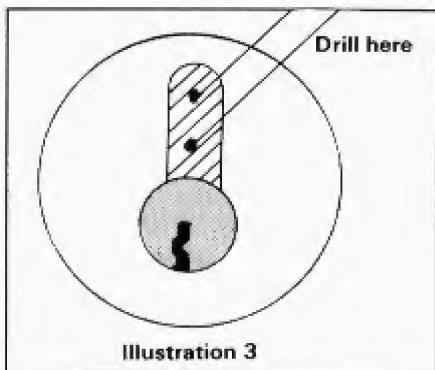


Illustration 3

sembly. This method will also work on most knobsets, requiring that only the outside knob be replaced. This method is especially useful if there is more than one lock that uses the same key.

Daryl Stephens

\*\*\*\*\*

This tip deals with a little shop practice and a nifty method of making a piloting pin punch in your drill press.

In order to remove the retainer from the rear of the plug on the American 2000 series Superlock, it is necessary to remove the roll pin that secures the two together. A special piloting pin punch or roll pin removal tool will greatly simplify this procedure.

To make the punch shown in illustration four which was designed specifically for the American padlock, first chuck up a piece of  $5/32$ " steel in the drill press. Turn on the drill press and,

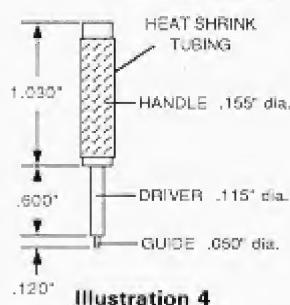


Illustration 4

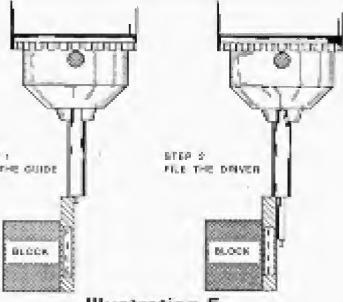


Illustration 5

while holding a flat file against a square block (to keep it square with the drill press table and parallel with the rod), gently feed the file into the rod as

shown in illustration five until the rod is reduced to the diameter of the pilot section of the punch. Now, either lower the rod in the drill press or raise the table to bring the file to the level of the second step of the punch.

Again, holding the file tightly against the guide block, feed the file across the rod until the body of the punch reaches the proper diameter. Feed the file against the rotation of the rod in the drill press. By using a square wood block or a drill press vise to hold and steady the file, the shaft of the punch

will be perfectly straight and true. Cut the punch handle to a convenient length and cover the handle of the punch with a piece of colored heat shrink tube. Use different colors to denote different size punches.

The pilot prevents the punch from slipping off the pin while driving it out and will also hold the pin on the tip of the punch for easy installation.

Milton Chanove  
Missouri

\*\*\*\*\*



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The following are a couple of tips that I have used with good results.

The first deals with the '84½ and up Ford 10 wafer door locks. I had occasion to repair an '88 Mercury door lock that someone had tried to open using a screwdriver. The shutter assembly (spring door) and lock cap had been damaged beyond repair, and needed to be replaced. The shutter assembly was salvaged from a used lock, but finding a new cap to fit the Ford door lock was a problem. I found that an AMC cap or a Toyota cap were approximately the correct size and depth to replace the Ford cap almost exactly. The caps are a tiny bit large, but work fine.

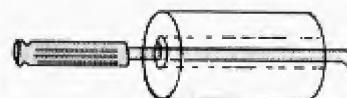
*Editor's Note: Rumor is that All-*

*Lock may soon be producing a Ford 10 wafer door lock keying kit. It will contain caps for these locks.*

My second tip is the solution to a problem I encountered some time ago. A commercial customer called to say the lock on her store front had come apart in her hand as she tried to open it. When I arrived, she handed me the lock plug and asked if there was any way to open the door without destroying the rest of the lock.

Surveying the situation, I went to my truck and found an old small screwdriver and bent the tip as shown in illustration six. With the tip bent as shown, it was an easy matter to reach through the lock and manipulate the deadlocking pin to release and retract

**Turn and lock will open.**



**Illustration 6**

the bolt. The whole job only took a few minutes and the customer was in and opening up shop as I completed the repair.

Norman Smith  
Massachusetts

*Editor's Note: This is a relatively common problem with out-swinging doors that have a strong closer. The customer pulls the door open with the key rather than using the pull handle. Keys and cylinders wear badly and eventually either the key breaks in the lock or the plug is pulled out of the cylinder. If any readers have come up with a good solution to this problem let us know.*

\*\*\*\*\*

After reading an article on recombining the American padlock model #747, I discovered an even easier method for removing the lock cylinder. My method does not require removal of the shackle. If a working key is available, simply open the padlock and invert it. Holding it firmly, rap the top of the padlock against the bench top, applying a sliding pressure on the dovetail plate with your index finger. Bingo! The spring-loaded plate retainer pin will release the dovetail plate and it will slide away to reveal the lock cylinder, and allow it to be removed for service. Slide the plate only far enough to remove the cylinder. This tip greatly reduces the time required to recombine this lock.

T.J. White  
New York

\*\*\*\*\*

This tip is for modifying a key blank for shimming open a lock. The tip of the key is modified to form a longer ramp, to make shimming the lock easier. (See illustration 7.) Always lubricate the lock and run a blank in and out a few times to insure that the pins are all working freely. Trim the end of your shim squarely with a pair of scissors, to remove any bent up or deformed sections. Shim the lock by sliding the shim back out of the lock slowly as you wig-

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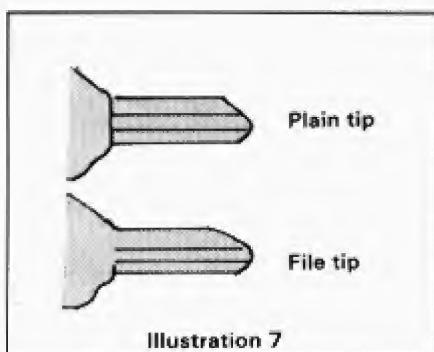


Illustration 7

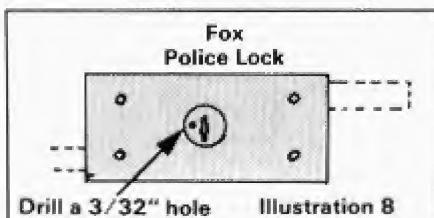
gle it back and forth. Never try to shim a lock by pushing a key into the lock. This will eliminate the possibility of damaging the end of the shim on a spool top pin. The only time the shim should ever touch the bottom pin is in the lock as it is shimmed.

Frank Jordan  
South Carolina

\*\*\*\*\*

This tip is in reference to a problem I've had with Fox police locks. Sometimes the customer will force the inside knob, to extend or retract the bolts, without pulling out on the knob first. Or, due to a misalignment of the bolts with the holes in the jamb, continued forcing of the lock with the key will shear off the lock actuator at the rear of the cylinder. Once the lock actuator is sheared off, you have a nasty lockout. The following is one method of servicing this lockout quickly, and with minimum damage to the lock.

Drill a  $3/32"$  hole, about  $\frac{1}{4}"$  deep, at a point shown in illustration eight adjacent to the keyway. Screw a dent



puller into the hole, insert the key into the lock and turn the cylinder about a quarter turn and extract the lock plug. Use a screwdriver to open the lock. You now only have to replace the lock plug and tailpiece, or install a new cylinder. In this way, you have not injured the lock, but only the cylinder.

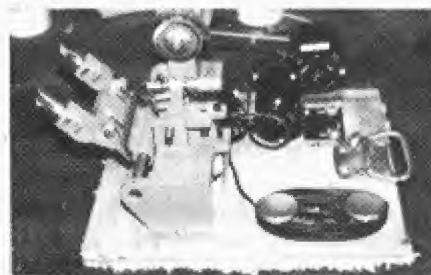
Frank Markisello  
New York

*Editor's Note: This method should be considered as a last resort only. If another entry into the property exists, it is highly recommended that you*

*attack this lockout from the inside, by disassembly.*

\*\*\*\*\*

Here is an idea for a portable key machine for those that use the Foley Belsaw 200 key machine. (See photograph nine.)



9. Foley Belsaw 200 key machine.

The key machine is mounted on a piece of  $\frac{3}{4}"$  plywood. Carpet on the bottom of the plywood prevents scratching of the table and dampens vibration. Note that two motors have been installed on the platform. The first is 12VDC and the other one is 115VAC. This allows the machine to work in the truck or on regular house current by simply changing the belt to the other motor. A handle on the rear of the platform is for portability. Drawer pulls at the rear of the platform are used to wrap the power cord when not in use. The dual power capability is really handy.

Eugene Gentry  
Arizona

\*\*\*\*\*

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# Newsmakers

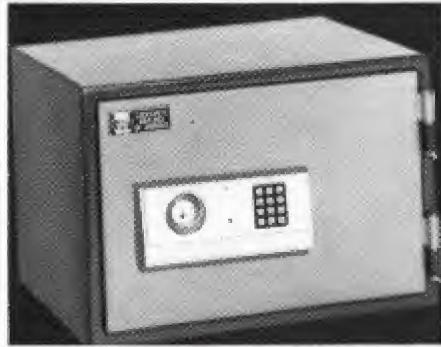
## New Products and Industry News

### LSDA Announces Additional Safe Line

LSDA, Locksmith Dealers of America announces the addition of a short line of fire and burglary safes which will be available to locksmith dealers in June of 1988.

The line consists of one and two hour home and office safes, two-hour record safes, and B rated in-floor safes plus rotary hopper depositories in both single and double compartments. Also available are double compartment front face drop slot depositories. Doors are interchangeable on the depositories offering double key locking or combination locking or one of each on double compartment models.

One home and office safe is specifically designed for UPS shipping at 61 lbs. and includes molded styrofoam packaging for extra protection in transit.

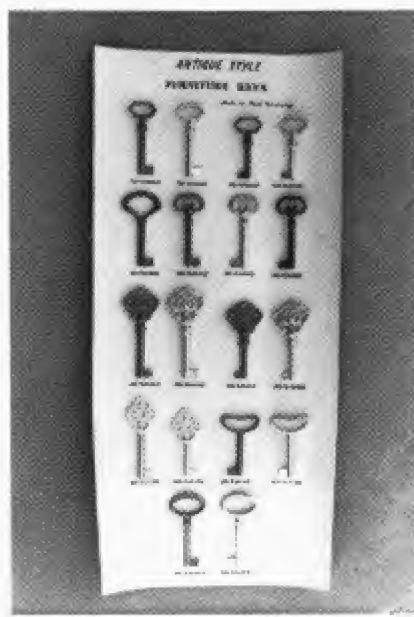


### DiMark's Antique Furniture Keys

Antique-style furniture keys are now available blister-packed and labeled from DiMark International.

The EF-J1 assortment includes three each of 18 different blank post keys covering seven bow designs, varied sizing, and four finishes. There is a small charge for blister-packing one of each different key and the shop name can be included at no additional charge.

Quality and finish are very good and all are in stock.



### HPC Introduces New Tubular Lock Pick

HPC is proud to introduce a new tubular pick (No. TLP-CS), manufactured in limited quantity to celebrate the 1988 ALOA Convention in Las Vegas.

The TLP-CS is a virtual reproduction of the famous HPC "Peanut" tubular lock pick with one major difference. The TLP-CS will feature a handle made in the shape of dice which is attractive, yet functional.

Only 1,000 of these unique tubular lock picks will be made available as show specials. Be sure to see these picks and the many other HPC products during the ALOA Convention at the HPC Booth 422.



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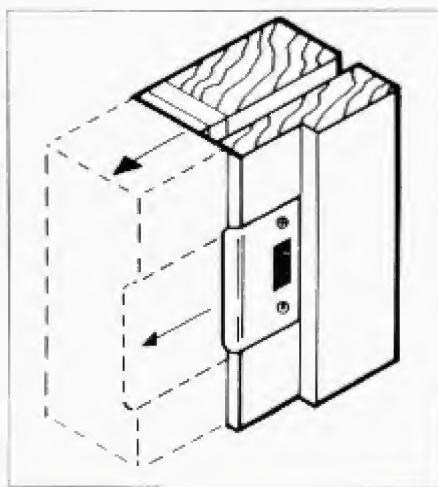


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## Don-Jo Introduces Extended Lip Strikes

Don-Jo Mfg. recently introduced an extended lip strike series. These strikes are used in various applications, from wide door frames on new style swinging patio doors to frames with added wall width due to installation of insulation or interior wall re-construction.

The EL Series strikes are available in 2", 2½", 3", and 5" lengths and all are 2⅜" high. Made of 13 gauge steel, these strikes are brass plated and individually polybagged.

A graphic design featuring a stylized globe composed of blue and green landmasses. Overlaid on the globe are the letters 'HPC' in a large, bold, black font. The letters are partially cut out, revealing the globe behind them.

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## Sentry Group Protects Home Offices From Fire

An increasing number of Americans now have their offices in their homes. Chances are they keep important documents in their home or business records that they would not want to lose.

The most basic protective measure is to store important papers and computer diskettes in a safe or storage box that is specially engineered to protect its contents from fire. Containers that carry the U.L. label, such as those from Sentry Group, have undergone rigorous testing to ensure that their contents will remain safe through even the most severe fire.



For people with just a few documents to protect, Sentry Fire-Safe Security Chests offer compact and portable fire protection. Or for more extensive storage needs, the Sentry Fire-Safe Security File holds dozens of documents in hanging file folders; and hundreds of folders are accommodated in a full-size, two-drawer Fire-Safe Office File.

## Locksoft Announces Master Keying Program

Locksoft, Inc., has announced the release of MK2.00, a full featured master keying program for IBM and compatible computers.

Features include pop-up windows for help, on screen diagramming of the system flow chart, and full control over all variables such as TMK, SOP, and KBA. All major manufacturers are supported including interchangeable core. Constants are supported and the system can generate standard progression or rotating constant systems. Pinning charts are available both on-screen and in the printout.

The single screen design and interactive nature of the program allow you to watch how changes in parameters affect the entire system.

## Architecturally Compatible Detex Face Plates

New, architecturally compatible face plates are now available for Detex Corporation's Dentco II® single door and multiple door access control units. While the standard Dentco II door unit has a camel tan painted finish, optional face plates now are available in Antique Bronze and Satin Chrome to blend with architecturally specified decor.

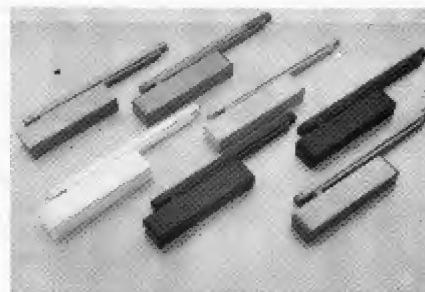
Dentco II DS-1605 controls access to single doors. Dentco II MDS, Model DS-1606, new this spring, extends access control to multiple doors with remote or local programmability. It features advanced flexibility and simple two-wire installation.



## Colored Hardware From Dorma

Dorma Door Controls Inc. offers its European TS and American DC door closers, in a variety of colors, to match colored door hardware available from various manufacturers, such as Hewi, NormBau, BBW, etc. Dorma colored hardware also helps specifiers to better match or contrast color to achieve greater uniformity where aesthetically coordinated design is preferred.

The company's color line offers a host of bright yellows, greens, blues, reds, etc., as well as softer shades and basic blacks. The color line also complements Dorma's existing color finishes.



## Von Duprin 22 Series' New Trim Options

Von Duprin, Inc. is offering new knob, lever and thumbpiece trim options for its economical 22 Series exit devices, to broaden their application.

The new 210K, 210L, and 210 TP trim option, which will be available in August, permit the use of the 22 Series devices to meet handicapped and other requirements. The knob is a new design, replacing the previous knob, while lever and thumb piece are completely new to the 22 Series.



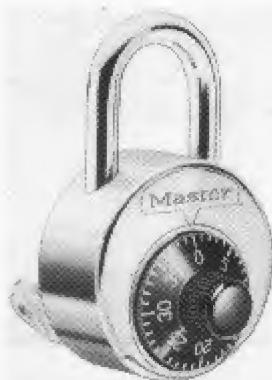
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## Master's High-Security Combination Locks

Specially designed for use in educational and industrial facilities calling for maximum security, Master Lock's 2000 Series combination padlocks offer security equal to pin-tumbler, keyed padlocks.

Based on pull, sheer, twist and wedge comparison tests, the 2000 Series more than doubles conventional combination lock security. The patented three-steel-ball deadbolt locking mechanism secures the shackle against prying, and guards against shimming or rapping. Tumbler disks disarrange automatically upon locking, to prevent "feeling out" the combination.



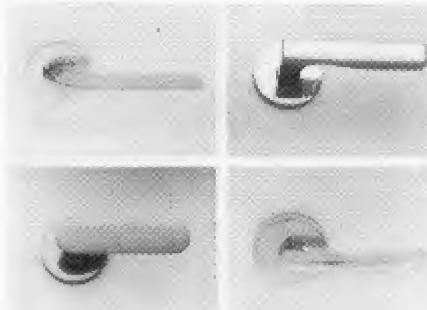
Circle 314 on Rapid Reply

## Valli & Colombo Adds To Handle Line

Valli & Colombo continues its handle introduction for 1988 with another set of four new handles: two from the Fusital line, one Forges', and one from the Valli & Colombo line.

All handles are available in passage, privacy and dummy functions. Handle options include round rosettes for Fusital and Forges. Valli & Colombo is available in both the escutcheon style and round rosettes.

All handles fit standard doors. Each lever has an easy to the touch 25 degree angle depression and extra strong springs that allow full latch retraction.



Circle 315 on Rapid Reply



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## Sympathy

On May 6, 1988 an automobile accident tragically claimed the life of former ALOA President Joe Jackman. He was on his way to a service call when the accident occurred.

Joe was deeply committed to locksmithing having served in many positions with ALOA, including president. He was also a member of local associations including Missouri/Kansas, Oklahoma, Texas and Louisiana/Mississippi.

In a 1985 interview with *Keynotes* Joe expressed his philosophy of business. He said, "To be honest and sincere with all people, to do the best pos-



sible work at a fair price, to guarantee all work and never allow any work done you would not accept on your own house or business."

When asked what he most enjoyed about locksmithing, Joe replied, "I enjoy the new challenge each day presents. It makes you anxious to get to work each day to see what totally new challenge you have waiting."

The record clearly shows that Joe Jackman was a man with much regard for his profession, his customers and his fellow locksmiths. We offer our deepest sympathy to his wife Joan, and to Joe's other family and friends.



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## Lori Door Hardware

"The company decided that their new line of designer hardware should fit a standard cylindrical lock door prep and use only quality solid brass."

The major marketing decision that Lori Lock made for their new line of designer door hardware was that this line should fit a standard cylindrical (key-in-knob) lock door prep and use only quality solid brass trim for maximum durability and long lasting service. They started with their popular and versatile 4500 series mortise cylinder deadlock. This lock trim blends perfectly with most commercial and residential locksets but does not have a "classic" look required for designer hardware.

**4600 Series Mortise Cylinder Deadbolt.** The 4600 series deadlock was specifically introduced for the upscale

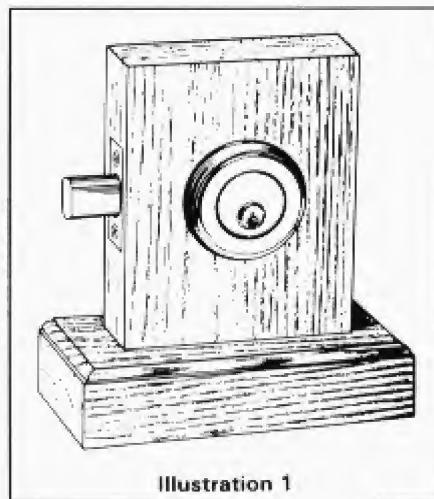


Illustration 1

designer hardware market. The cylinder rose projection from the face of the door on this new 4600 series was reduced to only  $\frac{3}{8}$ " and a bevel and recessed ring were added to enhance this low profile appearance. All of the other features of the 4500 deadlock were retained with 2", 2 $\frac{1}{8}$ ", and 2 $\frac{1}{4}$ " backset and mortise cylinders with 18 of the most popular keyways plus the high security Kaba Gemini. (See illustration 1.)

The next decision was to design a new Lori key bow and stock keyway. (See illustration 2.) This key bow is available with the popular Schlage "C" keyway as standard, and Lori 80 as

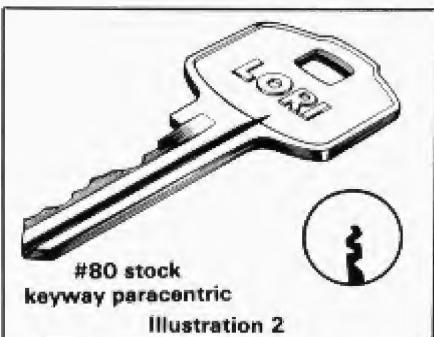


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optional.

**6000 Series Entrance Handlesets.** A new line of entrance handlesets was developed to include the new 4600 deadlock, on entrance doors. (*See illustration 3.*) These handlesets are made

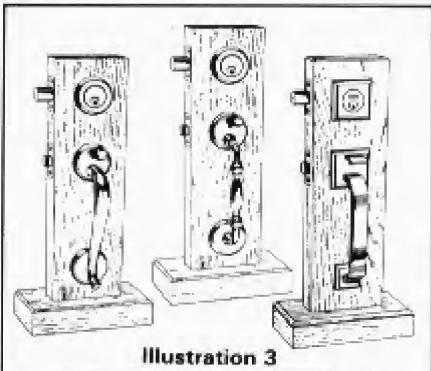


Illustration 3

of solid brass forgings for strength, durability and elegant appearance. A new (patent pending) thumb latch mechanism was developed for a strong positive smooth acting thumb piece operation of the tubular latch. The 4600 deadlock trim matches the handle trim and offers 1" throw deadbolt security to these entrance handlesets. There are only three major components for these handlesets allowing easy installation.

These entrance handlesets are available with two inside knob designs: Classic and Round. Five lever handle designs: Swirl, Wave, Colonial, Straight and Return are also available. These knobs and levers are also made of solid brass forgings.

**6200 Series Interconnected Handle-set.** The entrance handlesets are also available with a new interconnected simultaneous retraction of the latch and deadbolt from the inside. This "panic release" mechanism uses a rack and pinion design for smooth and positive operation, and the mechanism is reversible. For a neat and tamperproof appearance, the inside escutcheon has no exposed screws. The three design handlesets are available outside with two knob and five levers designs available inside. The deadbolt mechanism is

the same as the 4600 with its heavy duty mortise cylinder housing. All 18 popular keyways plus the Kaba Gemini are available. (*See illustration 4.*)

**6300 Series Interconnected Knob or Lever Lockset.** This series is the same as the 6200 series except that the handles are replaced by knobs or levers on the outside. An optional escutcheon is also available outside.

**6100 Series Interior Latch Sets.** This series latchset is available with the two knob and five lever designs. A new modern tubular latch was designed that has two springs in the case; one

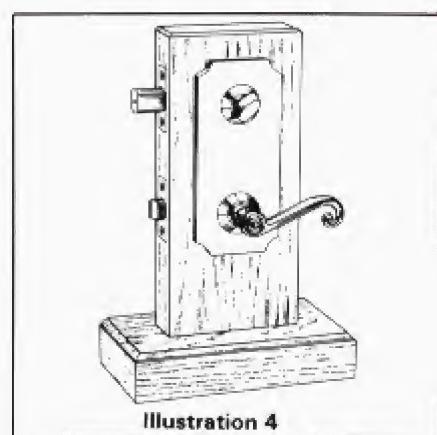


Illustration 4

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The National Locksmith

light spring for the latch and an extra heavy duty coil spring to operate the levers to prevent lever sagging. This tubular latch unit has been tested for over 100,000 cycles with no loss of spring pressure. The hubs are made of steel and accept a 9/32" spindle on the diamond or a 5/16" spindle on the square. All of Lori's door knobs and levers are attached to 9/32-20 spindles set on the diamond with two 1/4-20 set screws. The screws have Loctite to prevent the knobs or levers from loosening.

These interior latchsets fit the standard cylindrical lock door prep with

concealed rose liners through-bolted to ensure that the knob or lever rose does not loosen on the door. The roses have no exposed screws. This gives an elegant tamperproof appearance. To operate the brass latchbolt requires only 45 degrees of lever movement. These tubular latch units are available in 2", 2 1/8" and 2 1/4" backsets. This versatile tubular latch unit is used on all of the Lori designer hardware products.

The privacy tubular latchset (see illustration 5) is unique in that it uses a swivel spindle with a locking hub and beveled hub which automatically unlocks this unit just by operating the

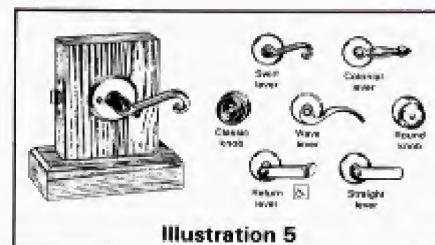


Illustration 5

inside knob or lever. A small button alongside the knob or lever on the inside rose is depressed to lock the outside knob or lever. A small hole in the outside rose allows the insertion of the Allen wrench, nail or pin to unlock this unit in case of emergency. The latch unit for the privacy set is reversible RH or LH. For RHRB and LHRB you can remove the cover on the tubular latch unit, take out the latch, and rotate the latchbolt head 180 degrees, and replace the latch.

**6700 Series Exterior Narrowline Lockset.** The 6700 series Narrowline set was introduced to meet specific market needs. It is used when the slim narrowline appearance is desired, generally with a narrow stile application. It is especially appropriate for swinging patio doors and French doors.

The narrowline escutcheons will not fit a standard cylindrical lock door prep. The escutcheons are solid brass and an insert cylinder with a lazy tail-piece is used to operate the 1" throw deadbolt from the outside. The regular tubular latch unit is used to latch the door. The two design door knobs and five design lever handles can be used on this Narrowline trim. This lockset is available with single cylinder only and has 2", 2 1/8" and 2 1/4" backsets. (See illustration 6.)

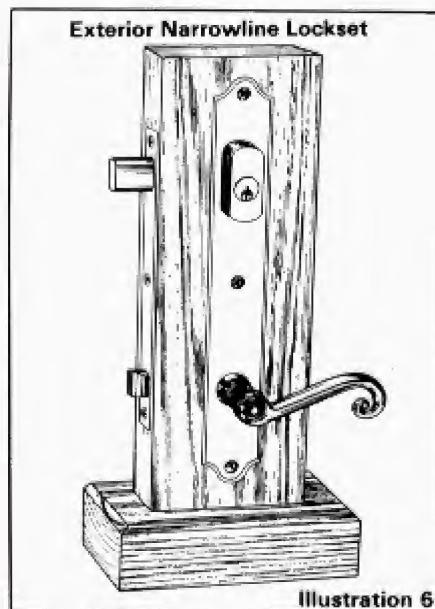


Illustration 6

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# American Lock Plans Future

"One of the most important innovations at American Lock is not a new product, but rather an increased sensitivity to the marketplace."

Seventy-six years after its founding, American Lock Company continues to assess and modify its product line, marketing support activities, and manufacturing efficiencies to maintain a high level of customer support.

**Technology-Driven Product Development.** American Lock was born in innovation. Railroad machinist John Junkunc founded the company in 1912 to manufacture the keyless combination padlock which he had just invented. The firm grew steadily by adding other products to its line—again through innovation—including removable and rekeyable lock cylinders, solid steel 7-pin tubular cylinder padlocks, the high-security Model 747 shrouded lock, the patented Model 2000 shackleless padlock, and the dou-

ble steel ball locking system.

"From the beginning, we were a technology-driven company," observes Bill Walsh, Sales Manager for Commercial Sales. "John Junkunc was a machinist in the European craftsman tradition, and his approach to business was to make and sell the best possible product.

"To a large extent, my father's philosophy still energizes the company," says current president George Junkunc. "We place a high value on quality, and we continue to rely on technology for new products and new ways to make existing products better."

For instance, Junkunc points out, in 1987 American Lock introduced a line of anodized aluminum locks—the 1000

Series. They combine the hardened steel shackle and cover plate, double ball locking system, and rekeyable features of the most high-security locks with remarkable corrosion resistance and brilliant permanent body color for easy identification.

One notable improvement to existing locks, he adds, is that the hardened steel cover plate, introduced on the high-security 700 Series, is now a standard feature on almost every American lock.

**Market-Driven Product Development.** One of the most important innovations at American Lock is not a new product or product line, but an increased sensitivity to the marketplace as a guide to product development.



Keyed-alike systems can include both high security and corrosion resistant locks.

Vice President of Sales and Marketing Gene Goode points out:

"We are known in the industry for the quality of our products, and we will retain that emphasis. But we also have a responsibility to our customers to develop products that sell well."

American Lock has reinforced its commitment to that responsibility by adopting a more formalized program of new product development. In addition to allocating more engineering time to initiating and refining products, it has also set up more discriminating techniques for conducting and analyzing market research.

In 1986, for instance, the 1000 Series corrosion-resistant locks were first introduced to the locksmith industry at the NLSA show, where the company gained feedback that helped it shape its marketing plan for the new product.

"Originally," Goode says, "we thought of these locks as consumer

products, and they have sold very well in that market."

But feedback from distributors and locksmiths, and objective analysis of the commercial market, clearly indicates that the brightly-colored locks have wide commercial application as



**Corrosion-resistant colored locks are fit for OSHA's new safety lockout requirements.**

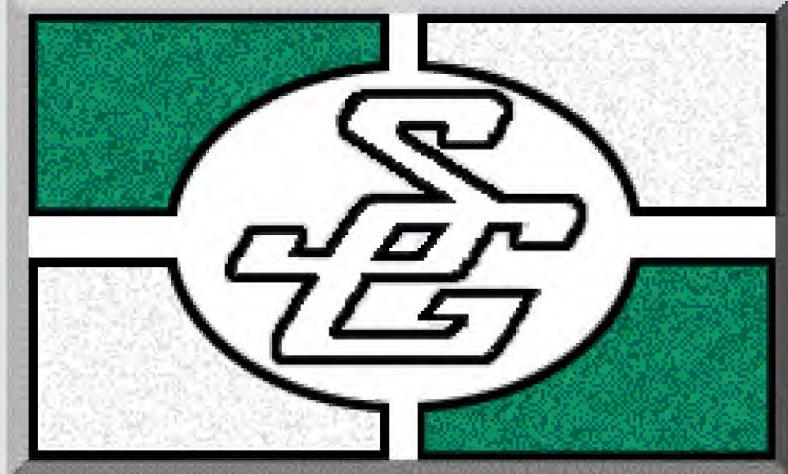
well.

"Safety lockout systems have become a 'hot' topic recently, and the Occupational Safety and Health Administration (OSHA) has proposed requiring locks on equipment shut down for inspection and maintenance. What better kind of lock than one color-coded to show the department working on the equipment?"

The colored locks have also become a valuable addition to American's ability to deliver lock systems. Since they feature the same rekeyable cylinder used in other American locks of all security levels, they can be part of a system master keyed to give the customer (whether homeowner or company security manager) exactly the access flexibility he needs.

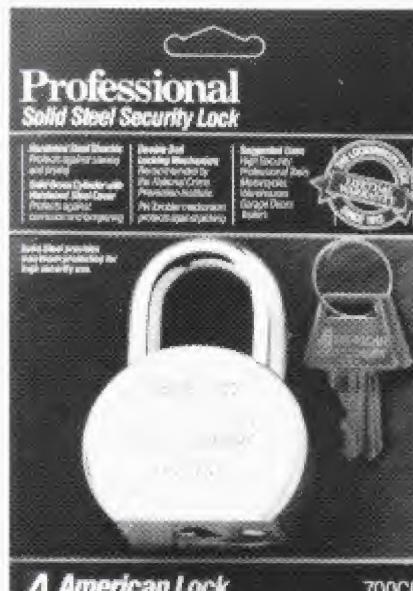
**Emphasizing Sales Support.** "We are committed to the two-step distribution system," Gene Goode states, "and that commitment involves supporting the distributor and the locksmith not only with products but also with sales support materials."

At the 1988 NLSA Show, the company met with 45 major locksmith distributors to discuss its new marketing support plans, specifically designed to enable locksmiths to increase in-store sales—a goal locksmiths and distributors have brought to the company's attention on a number of occasions. New marketing tools presented at those meetings included: point-of-purchase displays, carded products for locksmiths, quarterly sales promotions, new product and merchandising aids catalogs, and tie-ins with national advertising/publicity campaigns.



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New packaging appeals to locksmiths' walk-in trade.

As a result of those distributor meetings, the company will now proceed to implement its new marketing support program. Part of that support is a new national advertising campaign featuring an elephant as a symbol of both company and product strength.

**Manufacturing Productivity.** In the past few years, American Lock Company has made a number of critical decisions affecting manufacturing.

"We have re-committed ourselves to maintaining the high quality we're known for," states Executive Vice President Bill Noone. "At the same time, we know that we have to raise manufacturing productivity to meet the demands of our steadily growing business. In the last three years we have achieved our best delivery performance of the past 16 years. We plan to reduce order fulfillment time even further over the next year."

The company had realized in 1982 that it needed to place more emphasis on efficiency. Three manufacturing locations were condensed into one (the current Crete facility), which was expanded to more than 100,000 square feet of office, manufacturing, and warehousing space. CAD/CAM equipment was introduced into engineering and manufacturing functions, new automated machining centers were installed to increase productivity, and CNC electronic controls to maintain quality.



Automated equipment has brought American productivity levels.

The new machining centers perform multi-stage operations previously handled separately. The sophisticated centers can produce finished parts from bar stock, where some machining was previously "farmed out." This not

only saves time, space, and labor, but also lets American Lock reduce its vendor commitments.

"It was a large investment for a company of our size," says Bill Noone, "but necessary, for us to accomplish our long-range goals of maintaining quality and meeting increasing demand."

**Tomorrow's American Lock Company.** The progress of the past five years will continue into the future. Manufacturing is in the midst of revamping work flow patterns to provide better work-in-progress space

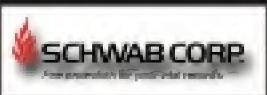
allocation. The new product development teams are assembling market and engineering data that will determine the innovations of the next few years.

"These changes will not make American Lock Company a different company," says Gene Goode, "but they will make the American Lock Company that locksmiths have known and trusted for 76 years better able to deliver high quality products with a timely order turnaround, and with marketing support that will help our customers sell to their customers." ■

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## Servicing The Ford Probe

"Opening as I suspected, was a snap. The window could easily be wedged out because it does not close into a channel. Here's what to do."



Send your car opening questions to: Shirl Schamp, The National Locksmith, 698 Bonded Parkway, Streamwood, IL 60107.

by Shirl Schamp

Welcome to 1989! The new Ford Probes are in. When Jay Skelton, one of my main collaborators on all my car articles, learned that we had not yet seen the new Ford Probe, he set up an appointment for us at Senator Ford in Sacramento so that we could write an article. (See photograph 1.)

When we got there we naturally



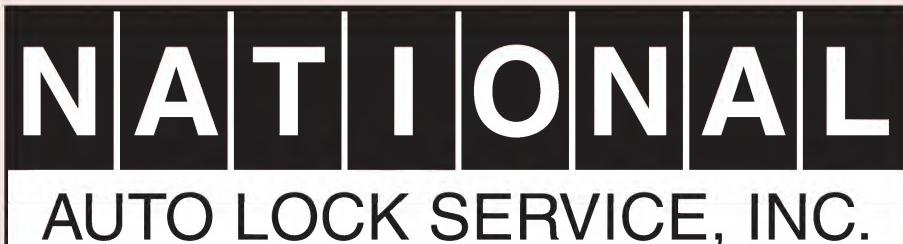
1. The 1989 Ford Probe.

walked around the car and evaluated it. I remember thinking this is going to be a snap to open, but I hope I don't have to work on the trunk lock. The trunk lock is probably not very difficult but the fact that it's mounted directly in the

center of the tail light had an intimidating effect on me. I figured the best way to approach this would be as if we were called out to make keys for this car and on arrival found the car locked.

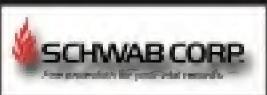
Opening, as I suspected, was a snap! The window could be wedged out easily, because it did not close into a channel. It was merely laying against the protective rubber molding with only a small clip mounted on the top to keep it from being spread. The clip obviously wasn't going to do its job because if you wedge the window outward it was going to clear the bottom of the clip. Even if it had not totally cleared it, I'm sure with minimum downward pressure on the upper edge of the glass

*Continued on page 38*



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we would have cleared it with ease.

Another approach could be using a Super "J" (a Super Jim with a 3" bend in the end and notched to catch a vertical rod from either side of the tool, an HPC product). This was determined because the inside locking button was mounted on the window ledge which tells you it's vertical. If it had been mounted on either the are rest or the door panel it would have been horizontal.

#### Explanation of Methods

**Super "J"/Button rod itself.** Insert a wedge between the window and the door. Then bowing inward, insert a

Super "J." This tool will bind on the rod itself. Note: If a window is lipped (channel along the bottom of the glass), first insert a straight Slim Jim. Then walk the Super "J" down the straight Slim Jim. Then remove the straight Slim Jim and proceed to slide the Super "J" over against the vertical rod and lift. On the Probe I found it worked best if I connected with the front side of the linkage (toward the front of the car). (*See photograph 2.*)

**Hook/Button itself.** Place a wedge between the rubber molding and the window glass, allowing yourself enough room to insert a small rod with an "L"



2. The Super J should connect with the front side of the linkage.

bend on the end. I use the wood rod rather than wire because it must have a certain amount of tensile strength. (I first tried the wire and found it would straighten rather than pull.) What I used that worked well was the handle end of my CO-39 horizontal car opening tool. Insert the tool between the glass and the molding, hook the button and lift. (*See photograph 3.*)



3. Hooking the button and lifting to unlock.

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I took the existing key and decided to check it against the Mazda micro cards to see if I could utilize them while manufacturing a key from a lock. The only two Mazda cards that might help some were XF64 or XF65, which could be used to obtain the approximate spacing. I feel though, that the depths are not close enough to trust, and until a card comes out you would be better off to file in the depths, using the cards for spacing only. The cards only showed seven positions, again leaving the eighth position unexplained.

The thought occurred to us that maybe the ignition would rattle out like Toyotas and motorcycles, which would be the simplest approach to making an original key. No such luck! We noticed while checking the ignition, that to pull the ignition, the steering wheel would either have to be pulled, or at least in the unlocked position and I'm not sure that just being in the unlocked position would be enough. When the wheel is in a locked position, the bolts holding the shroud are covered by the wheel assembly (*see photograph 4*), but if the wheel is in an unlocked position you can rotate the wheel exposing the screws. We never bothered trying, so we don't know if removing the screws would be enough.



4. The bolts holding the shroud are covered by the wheel assembly when locked.



6. Protruding cam on rear of the plug.



5. Glove box lock—held in place by two screws.



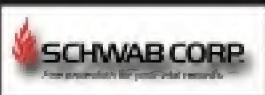
7. Retainer obvious after picking the lock.

Still being a little gun shy of the trunk, we had the door and the glove box to choose from. We naturally chose the glove box; it seemed to be the easiest approach. It is held in place by only two screws. (*See photograph 5*.)

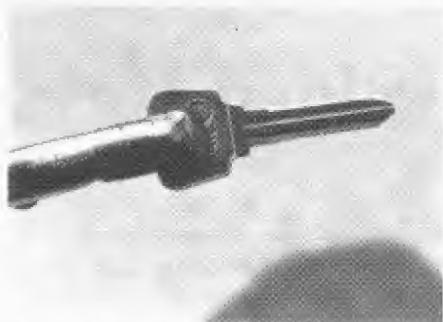
After removing the glove, the only possible problem that we could see was that the cam on the rear of the plug protruded through an extension of the bolt (*see photograph 6*), and in order to be removed, the lock required picking

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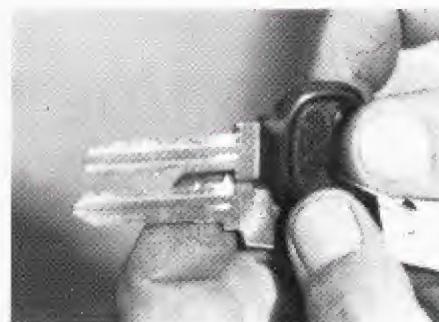
The National Locksmith



8. A key blank with bladed edges.



9. Checking the position of the wafers.



10. Key blanks with and without the unimportant eighth position.

at 90 degrees to align the slot. This presented no problem since the lock was a wafer lock with only four wafers; a simple pick job. After picking the lock the 90 degrees, the retainer became obvious. (See photograph 7.)

With the cylinder out of the housing we used the factory key to determine which positions the four were. They were numbers 4, 5, 6, and 7. This left positions 1, 2, 3, and 8 to be concerned about. I hope you noticed; there sat position number 8 isolated. I'm figuring by this point that 8 is probably one of those situations where the ignition has that one wafer which is not found in the other locks. Guess what, I'm wrong again.

Now we were faced with a choice of

either impressioning the remaining cuts, or pulling a door panel and disassembling the door lock. We opted for impressioning, the easy way out. It's a good thing because if we had gone to the door we still would have ended up impressioning.

The first thing we did was utilize the four cuts that we knew by placing them on our blank, figuring that at most we would only have to impression the other four positions. Then we bladed the edge of the blank in hopes of obtaining a better mark (see photograph 8.) The only thing to remember when impressioning a double-sided foreign key is to locate which side the wafers come in from (look into the lock), and make sure that you insert

your blank the same each time. Only be concerned with one side of the key at a time; you can always transfer the cuts to the other side later.

The Probe doesn't use a true double-sided key; it uses a convenience key. That is a key that is cut the same on both sides only for the ease of insertion. The lock itself only has wafers coming in from one side and in the truest sense is a single-sided lock and should be approached that way.

Now comes the almost unbelievable part of this key making procedure. We put a pair of vise grips on the blank, went to the driver's door, inserted the blank, and began to put a little turning pressure on the key. It turned both

*Continued on page 152*



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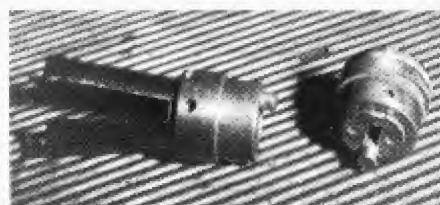
# Generating Chicago Double-Sided Keys

"The beauty of this method is that it does not require a blank to be wasted in order to determine the pattern of the key when you don't have a code."

by Robert Sieveking

I'm sure that there are other ways to make a key for the Chicago double-sided lock, but the method described here is the best one I've found. The beauty of this method is that it does not require that a key be wasted in order to determine the pattern of the key. I have had very good luck with key profiles obtained from codes, but the codes are not always on the lock. I'm sure that having a set of pattern keys is the ultimate luxury when it comes to making double-sided keys, but I don't get enough calls for this type of key to make a set of them cost effective. I'll have to remember to put them on my Christmas list for next year. Enough wishful thinking, how are we going to make a key for this lock without a code?

The first step will be to remove the lock from the cabinet. This lock is one of a set of locks, used to secure the sliding doors on some jewelry cases in a small shop. All the locks in one section of the shop were keyed alike. If a key is made for one, it should fit the others. By removing the only visible screw in the door track (a #4 flat head machine screw), the lock was removed. The lock on the right, in photograph one shows



1. Lock shows hole for retaining screws.

the hole for the retaining screw, toward the rear of the lock cylinder case.

After closely inspecting the lock, it was determined that the plug was being retained in the cylinder by an expansion ring at the front of the plug. There are two methods that might be used to remove the plug from the cylinder. The first would be to put the lock in a vise and drive the plug out the front with a punch. The second is to collapse the retaining ring and shoe-horn the plug out the front using pieces of shim stock to keep the ring compressed, preventing it from expanding into the retaining groove in the lock case. The latter method is the only one that I can recommend, as punching the lock will destroy the ring groove in the lock case and sometimes the groove in the plug also. The professional alternative is to disassemble the lock by compressing the retaining ring.

The retaining ring used in the majority of these locks is a flat .030" bronze ring. To collapse the ring, it is necessary to drill one and possibly two holes in the lock case, just behind the face of the lock. The lock on the left side of photograph one has such a hole drilled at the proper place to just see the edge of the retaining ring. Drill the hole far enough from the face of the lock, so that when the lock is re-installed into the cabinet, it will be concealed, but close enough to the front of the lock to contact the ring and press it down.

Using the square end of a broken pick, or a scratch awl, depress the ring far enough to slip a piece of curved shim stock between the retaining ring and the lock case. With this first piece of shim stock in the lock, pick the lock around 90°. Slide the shim with the plug as the plug is being rotated. Again depress the retaining ring and insert a second piece of shim between the ring and the lock case.

Because this particular lock only locked every 180° it was not necessary to pick the lock to rotate it another 90°. Slide the shims as the plug is rotated. Depress the retaining ring and insert a third shim between the ring and the lock case. There should now be three



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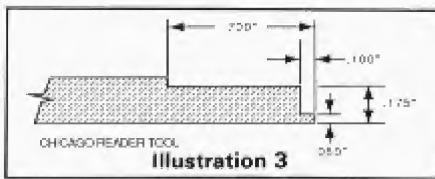
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shims in the lock, one every 90°. If the retaining ring does not rotate with the plug, it may be necessary to scratch it around, using a scratch awl through the drilled hole. If the plug is loose, push it out. If it is still being retained by the retaining ring, pick the lock again and rotate the plug, retainer and shims another 90°. Depress the retaining ring and insert another shim as shown in photograph two. The plug will now be free. Note: push it out the front of the lockcase with your fingers.



**2. Depress the retaining ring and insert a shim.**

With the lock plug out of the shell, the second step will be to make a key for the lock. The method I use requires that a small reader tool be made from a pick, or piece of flat spring steel. Illustration three shows the exact dimensions for the tool. When inserted into



the lock, the tool will hold all the wafers up against the spring tension of the "Z" spring in the wafer shell and rest on the center ward of the lock. The wafers are held up, with the *shoulder* of each wafer even with the outside of the plug. When the tool is properly placed in the keyway, it is resting on the keyway



**4. Lock plug with reader tool in position.**

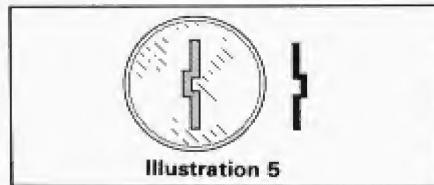
ward at the front of the plug and the keyway ward at the rear of the wafer shell. It is held in place by the tension of the wafer spring in the lock.

With the wafers held in this position, the height and relative positions of the combining tabs of the wafers will accurately describe the profile of the unknown key. Photograph four shows the lock plug, with the reader tool held in position by the wafer tension, immediately below a blank key. The blank

has been prepared, by blacking it with a black marker. The marker is used like layout dye, to allow the key profile to be scribed plainly onto the key with a sharp scribe. (A scratch awl is not usually sharp enough to do a nice job of scribing the profile plainly.) Draw the profile onto the key, judging the shape and location by the combining tabs in the plug.

Take special note of illustration five, showing the relative positions of the key and keyway. The profile that is

described in photograph four is of the reverse side of the key. If the key is not reversed as illustrated, the key you make will be upside down. (The center ridge on the blank will be on the wrong side.) A key cut upside down can be



**Illustration 5**



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reversed on a duplicator, but the blank will be wasted.

Once the profile has been scribed onto the key, file the key to shape with a pippin file. File carefully, "to the line." Compare the partially finished key to the lock plug, making sure that the profile exactly matches the location and profile of the combining tabs.

The last step in the process is to scribe the opposite side of the key blade and file the key to its final shape. A nifty tool that will make this procedure very easily is shown in illustration six. This tool was made from a flat steel

key. The key is hand filed to leave a notch, the exact width of the opening in a combining wafer, at the tip of the key. The tip is filed, as shown, to form a scribing point, and the shoulder is

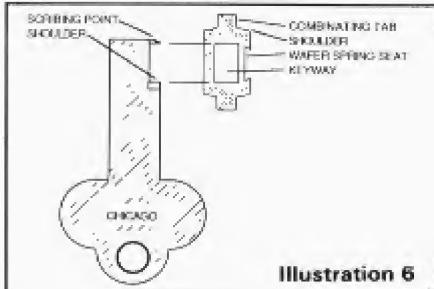


Illustration 6

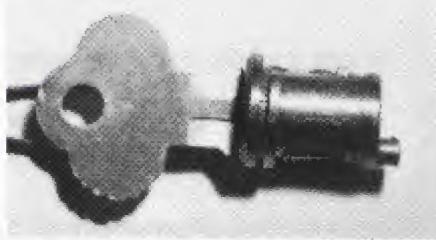
thinned to approximately the thickness of one wafer.

The tool is held squarely to the blank, (as shown in photograph seven) and slides along the filed profile, to duplicate the profile on the opposite side of the key. Once the profile has been scribed on the reverse side of the key, all that remains is to file the key to shape. Once filed, the scribe tool is used as a gauge, to check the key for uniform width over the length of the filed portion.



7. Tool held squarely to the blank.

The key should now fit into the lock. If the key enters the lock with difficulty, file any impression marks on the key to allow it to enter the lock smoothly. With the key inserted into the lock plug, the wafers should all be even with the outside of the plug, as shown in photograph eight. Assemble the plug and shell, without the retainer ring, to check the key for proper operation. If it works smoothly, reassemble the lock using the retainer ring, to complete the job.



8. Wafers all even with outside.

When duplicating these keys, use a Ford adaptor under the rib on the blank when clamping it into the key vise. This will accurately gauge the key to the bottom of the key vise, using the center rib as the gauge point.

The reader tool shown, was designed to be used on the CG1 (center rib) keyway. A wider tool is used on the CG2 and CG3 (left and right rib) keys. The scribing tool will work with all Chicago double-sided locks. I have had very good success with this method, but it does take a little practice to master. Good luck. ■

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## Decoding The Corbin Padlock

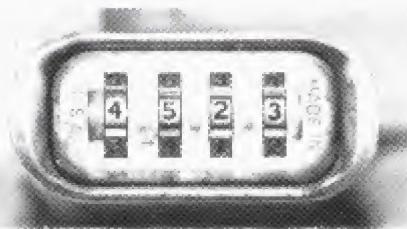
"When using the manipulation opening procedure, it's best to pick a starting point. Then proceed to work the combination one number at a time."



by Steve Spiwak

There are several methods for opening and decoding the Sesame combination padlock (*see photograph 1*). These methods range from manipulation to drilling.

When using the manipulation opening procedure it is best to pick a start-



1. Bottom view of Corbin Sesame padlock.

ing point (i.e., 000, 100, 200, etc.). Then proceed to work the combination one number at a time. Continue this procedure by either increasing or decreasing the numbers. After setting a new number remember to push in the shackle and pull outward. Unless this

procedure is followed each time a number is changed, then the lock will not open. Due to the locking mechanism involved, this procedure is necessary and is the reason that the standard padlock shims will not work.

Decoding the lock can be accomplished more easily than in past years, because there is a decoder available for this lock. The tool used is comprised of a brass tube with two pieces of thin spring steel at each end. One is slightly longer than the other with a larger angular bend.

Insert this tool in the slot to the right of the first and third wheel while turn-

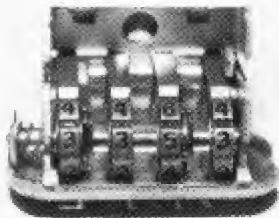
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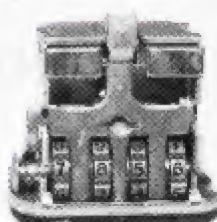
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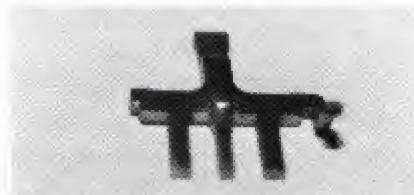
2. Insert the tool in position between the wheels.



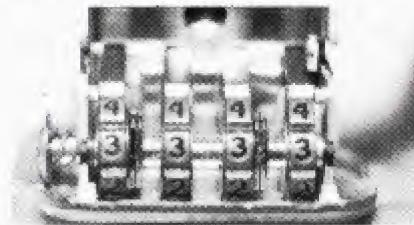
5. Close-up of two locking bars.



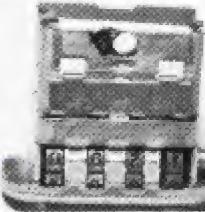
3. The retaining pin drilled out.



6. The locking comb.



7. All four wheels with flat spots aligned straight-up.



8. Note  $\frac{1}{8}$ " drilled hole has been cleaned of extraneous material.

Carefully lift off the locking comb. (See photograph 6.)

Now decode the lock by aligning the flat spots of the wheels until they are facing straight up. (See photograph 7.) Once this is done either the combination can be recorded or set to 0-0-0-0 by pressing the spring loaded recombinating button which neutralizes the wheels returning all four of them to zero.

Before reassembling the lock, check the brass block and remove any part of the retaining pin that was not removed during drilling. (See photograph 8.) Now, reinstall the locking unit, remembering to use the pin and spring. Once the lock is reassembled, be sure to check the operation. Once satisfied with the operation of the lock install a solid pin, roll pin or screw to hold the lock unit securely in place. Grind the screw or roll pin, and file flush to the case.

This technique has proven time and again to be a quick and easy method for opening and decoding this type of combination lock. ■

ing the wheels (see photograph 2). Note: the first two wheels and the fourth wheel are both turned to the flat spot, while the third wheel is still rounded, and must still be decoded. Look for an indication that a flat spot has been found. This flat spot will line up under the unlocking comb so there is no need to transfer the numbers. Carefully remove the tool and insert the long side through the same slot. Now following the same procedure, locate the flat spots on the second and fourth wheels. Once completed the entire combination is known.

Drilling this locking unit involves the retaining pin which is visible from the outside of the padlock. The style of the retaining pin may vary depending on model. The retaining pin may be flush, recessed or have a rounded head. Whatever style is employed, the drilling technique remains the same.

First, locate the center of the pin. Then center the punch. Drill out the pin using a  $\frac{1}{8}$ " drill bit. (See photograph 3.) Using a small punch or ice pick, gently work the locking unit out of the case. Be careful not to lose the pin and spring. (See photograph 4.) Also, avoid letting the two locking bars fall out from the lock unit. (See photograph 5.)

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# Maintaining Adams Rite

"The 1850 has withstood the test of time from the 1950's to the present. You can help lengthen the life of this lock with some routine maintenance."



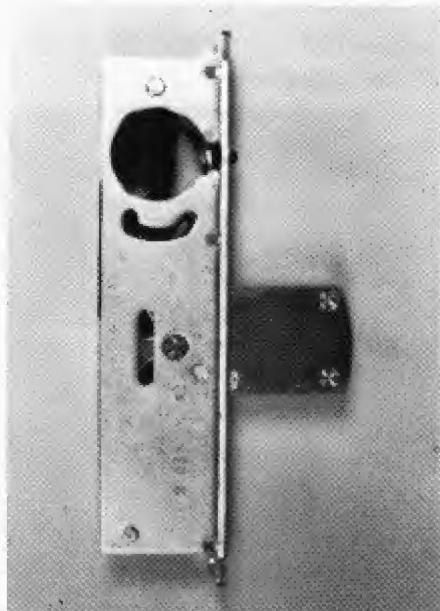
Send your lock and key questions to Jack Roberts, The National Locksmith, 698 Bonded Parkway, Streamwood, IL 60107.

by Jack Roberts

If we are to believe the claims that the KW-400 is the most widely used residential lockset, then it would be reasonable to assume that the Adams Rite 1850 (*see photograph 1*) is probably the most often encountered lockset on narrow stile aluminum frame doors. While this type rarely requires service, there are so many of them in use that the frequency of service may seem higher than it really is.

One of the most common calls for service is that the key won't turn. A shot of WD-40, or similar substance, in the keyway will usually solve the problem immediately. This method will not work with a cylinder which is closed at the rear, such as the Abloy, because there is no way for the substance to get into the lock.

If such is the case, gentle tapping with a soft mallet in the area of the lock while turning the key will often create enough action in the area of the cam and the deadlocking roller to effect



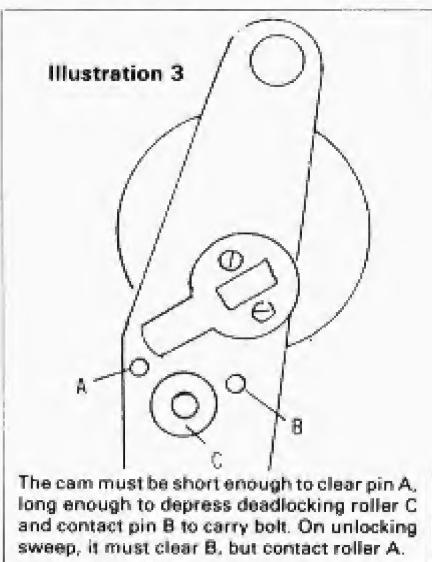
1. The Adams Rite 1850 lockset.

opening. These locks, like all others, are subject to dirt accumulation over a long period of time and a part of any service call should include a thorough cleaning of the interior by activating the bolt and spraying the interior mechanism. (*See photograph 2.*)

A loose cylinder set screw will often allow the cylinder to move just enough for the cam to strike the leading bolt arm pin which will prevent rotation of



2. Cleaning the bolt by spraying the interior mechanism.



The cam must be short enough to clear pin A, long enough to depress deadlocking roller C and contact pin B to carry bolt. On unlocking sweep, it must clear B, but contact roller A.



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the plug. Proper alignment of the cylinder will allow the cam to clear the pin, depress the roller, strike the trailing pin and release the bolt. (See illustration 3.)

The cam roller springs are the only parts in the 1850 that are subject to fatigue failure and this is rare. In an independent laboratory test a few years ago, the 1850 as well as a few clones, were cycle tested by motor driven cylinder cams at the rate of 10 complete lock/unlock cycles per minute. The 1850 was the only one tested that survived the full 250,000 cycle test. Cam roller springs should be carried, however, for that one occasion when they may be needed.

It is easy to tell when a spring has failed. The bolt does not snap into or will not remain in the locked position. These springs are lefts and rights and both springs should be replaced when one of them is broken. Photograph four shows the approximate position of the spring in the lock body.

Replacement requires that the lock be removed from the door. Remove the face plate (see photograph 5), loosen the cylinder set screws, remove the cylinder and thumb turn, and remove the lock from the door. Since this lock

cannot be disassembled it does require a bit of dexterity to replace the springs, but a pair of needlenose pliers will assist in getting them in the proper location. The 1850 series will be found with both long bolt and hook bolt con-



4. Approximate position of the spring in the lock body.



5. Removing the face plate.

figurations but the operation is the same for either of them.

There are a number of imported look-alikes in the marketplace and these can usually be detected by improper contact of the cylinder cam with the deadlocking roller or the cam striking the leading pin. If this problem is encountered the cam must be changed or modified for proper operation. This problem is rarely found with an 1850 since the manufacturing tolerances used by Adams Rite allow for longer and shorter cams of other lock companies to operate freely in the contact area.

Originally conceived by Charles Eads in the 1950's the 1850 has withstood the test of time and has the same basic configuration today as the original model. The layered bolt has undergone a few changes from hardened ply, to hardened rollers, to today's Alumina Ceramic sandwiching which will withstand the most severe attacks of forceable entry by sawing, hammering, or pulling.

You can lengthen the life of the 1850 by giving it a shot of WD-40 (or similar) when you are called for cylinder combination changes, closer service or other types of service work. ■



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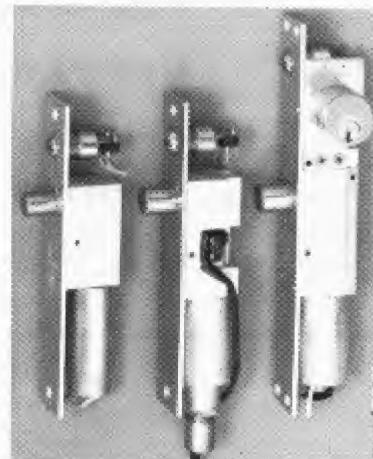
## Locking With Electricity

"The locksmith and the door hardware specialist are the most likely candidates for the electric future, though other competition cannot be ignored."

by Richard Geringer

Mechanical locks have provided good livings for locksmiths ever since locks with keys were invented a few thousand years ago. Perhaps they always will. But in only the past few decades the magic of electricity has opened up locking capabilities in controlled security, life safety, and record keeping far beyond mechanical locks. Already a large portion of the locksmith's market has been taken over by electric locks and systems.

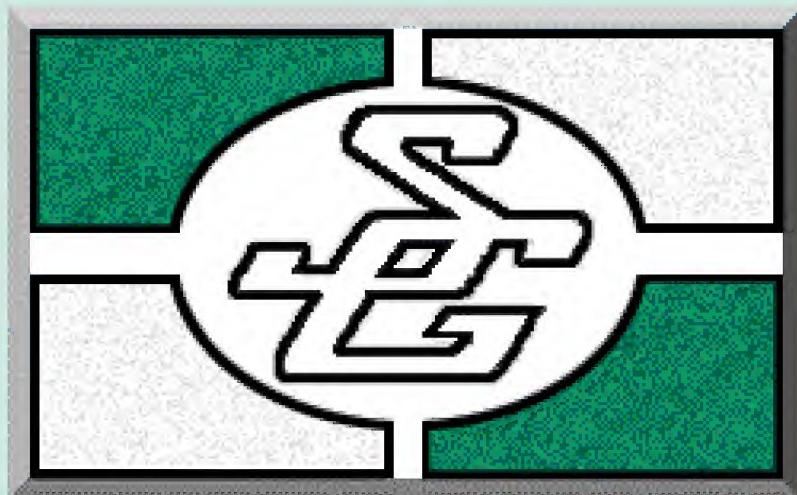
The amazing growth of commercial and industrial building complexes throughout urban and suburban America may be the most rewarding



Electro-mechanical locks.

market for the locksmiths. Basic electric locks range from about \$150 to \$400—systems are much more. Installation is labor intensive and a single job can easily run many thousands of dollars. Reputations are made in such work, and contracts may be obtained over a large territory, not only in new construction. Retrofit is a significant market as well.

The name of the game is access control. But every access control system means electric locks. No matter how large or small, from a 100-station system, multi-entrance card readers, or just your finger on one switch, there must be an electric lock for every



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entrance. Who is to provide and install those locks? Locksmiths? Access control companies? Door and hardware specialists? Glass and aluminum companies?

It has been the experience of Security Door Controls that access control companies prefer selling and installing their own line of card readers or digital keypad controls, but excluding the electric lock hardware. They recognize that doors, frames and other related hardware and problems are an entirely different field, better left to others. Glass and aluminum companies also do not seem to be as concerned with electric locks as the door and hardware people or the locksmiths themselves.

So as in the past, the locksmiths and the door and hardware specialists are the most likely candidates for the electric future, though other competition can never be ignored.

The following is a brief but comprehensive outline of the basic elements a locksmith considers in regard to electric security. Detailed information and assistance are readily available from major electric lock manufacturers. Two types of electric locks are available: electric bolt-action locks (electromechanical); and electromagnetic locks, which use electromagnetism alone for the locking power.

A third important factor in electric locking action consists of electric strikes, which are capable of releasing locks with latchbolts, deadbolts, mortise locks, panic exit devices and cylindrical locks. Electric strikes are always installed in the frame and therefore benefit from the advantages of in-frame installation. They also are able to operate with existing locks already installed in the door, but they do not provide the actual locking operation of the two basic types of electric locks themselves.

Electric bolt-action locks are available in surface mounted or mortise designs. The design of efficient right-angle-throw electric mortise locks allows concealed installation in standard 1 1/4" frames (or even 1 1/4" frames).

Bolt-action locks also offer a choice of two modes of operation: "fail-safe" or "fail-secure". Fail-safe, or PL (power lock), means that with power on, the door is locked; power off, the door is unlocked. Fail-secure, or PUL (power unlocked), is the opposite: power off, door is locked; power on, door is unlocked.

Most electromagnetic locks are surface mounted, and by their technology

are fail-safe only. Fail-safe locks are used whenever fire or life safety is a consideration. Perimeter doors and interior lobby doors of commercial and public buildings are good examples. Fail-secure locks are often used on high security installations such as detention facilities, banks and armed forces applications. They may also be used on interior openings of office buildings or high-tech facilities when not directly leading to exits.

Electric locks should be mounted in or on the frame rather than the door whenever possible. This avoids running wires which require a power

transfer loop. Be sure the electric lock is equipped with an auto-relock switch. The switch insures door closure and locks automatically when the door closes. Auto-relock switches are only required when using electromechanical locks.

An electric panic lock electrically releases concealed vertical panic devices. While the outside of the door is locked and access may be gained only by the use of switch or access control, free and immediate egress may still be accomplished simply by depressing the crossbar.

*Continued on page 153*

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# Locksmith Price Survey

"Here is our 1988 locksmith price survey. Things have changed somewhat since the last time we conducted a survey. See how you compare."

Every so often *The National Locksmith* surveys locksmiths across the nation to determine some national averages for pricing of your services. The last time we did so was June of 1986. Let's take a look at this year's figures. Then we can do several comparisons against the averages from two years ago.

As you look over this year's averages, keep in mind that

the figures are *national* averages. If you live in a large city, your prices may well be higher than the average. If you live in a rural area, your pricing structure could be below the national average. We did try to include city, suburban and rural areas in our survey. In so doing, we did notice that large city prices tended to be significantly higher than rural. Suburban prices were about in the middle.

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|------------------------------------|---------|
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| Cut American double-sided key..... | \$ 1.65 |
| Cut foreign single-sided key ..... | \$ 2.30 |
| Cut foreign double-sided key ..... | \$ 2.76 |
| Cut flat key (one-sided) .....     | \$ 2.27 |
| Cut flat key (double-sided).....   | \$ 3.03 |
| Cut tubular key (standard).....    | \$ 3.98 |
| Cut bit key .....                  | \$ 4.38 |
| Cut Safe Deposit Box key .....     | \$ 4.95 |
| Cut Medeco key .....               | \$ 4.43 |

#### Cutting Key By Code

|                            |          |
|----------------------------|----------|
| American single sided..... | \$ 5.65  |
| American double-sided..... | \$ 6.22  |
| Foreign single-sided ..... | \$ 11.67 |
| Foreign double-sided ..... | \$ 12.78 |

#### Auto Service

Take down colum on American car ..... \$ 65.80

#### Generating First Key

|                                   |          |
|-----------------------------------|----------|
| Impressioning for first key ..... | \$ 12.33 |
| Reading for first key.....        | \$ 10.50 |

#### Lock Work

Recombinante standard cylinder (in shop) ..... \$ 6.56

#### Safe Work (Minimum price does not include service call)

|                               |          |
|-------------------------------|----------|
| Drill safe open .....         | \$115.71 |
| Manipulate safe open .....    | \$126.43 |
| Hand change combination ..... | \$ 28.73 |
| Key change combination .....  | \$ 27.60 |

Since we last conducted a price survey, two years ago, prices have risen somewhat. Some of the notable changes are as follows. The cost of a service call has risen by roughly 10%.

To open a car during business hours has climbed by almost 30%. Perhaps this increase can reflect the increasing difficulty of opening locked cars as they become more and more difficult. Your cost on these calls has risen since you now have to spend more money on tools and time on training. In any case, we should be grateful to the auto manufac-

turers for making this job more difficult. To open a locked car after hours, but before midnight, has climbed by 32%.

To cut an American single sided key has risen only by 3% over the last two years. This item traditionally never kept pace with inflation, however. But do remember that the cost of your machines (and even the electricity to run them) has risen also.

In the field of safe work, the cost of drilling open a safe has climbed by 15%. ■



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## New Chrysler Locks

"A new locking system will be introduced this fall on the Plymouth Acclaim and the Dodge Spirit. In 1990 and 1991 the system will be found on all Chrysler vehicles."

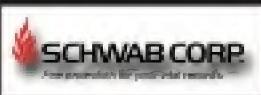
Chrysler Corporation will introduce a new locking system this Fall on their new "A" body. The Plymouth version will be called the Acclaim and the Dodge version will be called the Spirit. It will replace the "K" body Plymouth Reliant and Dodge Aries, cars that have produced prominent volumes since the early 1980's. In 1990 and 1991 the new locking system will be implemented on all Chrysler vehicles. The Chrysler double-bitted locking system will be a one key double-sided (convenience key) system operating all individual locks. A separate valet key will operate the ignition and door locks only. The new locks will have wafer

tumblers. There will not be a side bar. Service and recoding procedures will be done with ease.

Briggs and Stratton Technologies is the co-engineer and manufacturer of this new locking system. To service this new lock, Briggs and Stratton Technologies will introduce four new lock service packages, a new glove compartment sub-assembly, glove squeeze latch, seat back sub-assembly and a service pinning kit. Parts will be available this Fall, prior to the cars' introduction in November. Following are illustrations and part numbers for future reference. Remember, these parts will not be available until late Fall. ■

### CHRYSLER DOUBLE BITTED SERVICE KIT

|                               |                         |                                 |                          |                               |
|-------------------------------|-------------------------|---------------------------------|--------------------------|-------------------------------|
|                               |                         |                                 |                          |                               |
| TUMBLER 1<br>B&S 594591       | TUMBLER 2<br>B&S 594592 | TUMBLER 3<br>B&S 594593         | TUMBLER 4<br>B&S 594594  | TUMBLER SPRINGS<br>B&S 590767 |
|                               |                         |                                 |                          |                               |
| DOOR CAP<br>B&S 321576        |                         | DOOR SPRING<br>B&S 46822        | DOOR E CUP<br>B&S 593981 |                               |
|                               |                         |                                 |                          |                               |
| REAR COMPT. CAP<br>B&S 321710 |                         | SPRING REAR COMPT.<br>B&S 46778 | UNIT SHUTTER<br>B&S      |                               |
|                               |                         | SHUTTER SPRINGS<br>B&S 46766    |                          |                               |



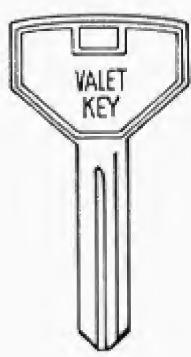
The  
National  
Locksmith

## CHRYSLER DOUBLE BITTED SERVICE PARTS

KEY BLANKS



MASTER KEY  
594145



VALET KEY  
321566

SEAT BACK CYLINDER  
ASSEMBLY



594588

DOUBLE SIDED  
WAFER TUMBLERS & SPRINGS



a b c d e

GLOVE COMPARTMENT  
CYLINDER ASSEMBLY



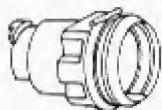
594590

B&S #'S

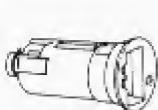
- a) 590767
- b) 594591
- c) 594592
- d) 594593
- e) 594594

NOTE: ALL ABOVE PART NUMBERS  
DESIGNATE 100 PCS PER PART NUMBER

### LOCK SERVICE PACKAGE - UNCODED DOOR



311077  
CASE



310984  
CYLINDER



594589  
SERVICE  
PRE PAK



321576  
CAP

### LOCK SERVICE PACKAGE UNCODED — REAR COMPARTMENT



46778  
SPRING



311069  
SPACER



312999  
CASE



312988  
CYLINDER



594589  
SERVICE  
PRE PAK



321410  
CAP

### LOCK SERVICE PACKAGE UNCODED — STANDARD IGNITION



594595  
SERVICE  
PRE PAK



311010  
DRIVER

394597  
HOUSING  
ASSEMBLY

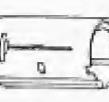


594596  
CYLINDER &  
KNOB ASSEMBLY

### LOCK SERVICE PACKAGE UNCODED — TILT AND TELESCOPE IGNITION



594598  
SERVICE  
PRE PAK



594600  
HOUSING  
ASSEMBLY



594599  
CYLINDER &  
KNOB ASSEMBLY

# Management For More Business

---

"The key assets you will have to review are your inventory and receivable numbers. How many days worth of receivables have not been collected?"

---

by Sean DeForrest

*This is part II in a series on managing your business for more profit. Part I was in the June 1988 issue of The National Locksmith. This month we focus on new responsibilities for the locksmith.*

In the last month's article, we observed that many forces of change are affecting the locksmith. One of our conclusions concerned locksmiths who have chosen to expand their businesses. These aggressive business owners are facing a new set of challenges including financial analysis, personnel management, and strategic marketing issues. The following is an outline of how these new issues challenge the lock-

smith owner.

**Financial Analysis.** As a locksmith's business grows, the need to have available and to understand key financial ratios will become critical. The owner's business will grow in complexity and reach the point when "peering at the cash register" will no longer suffice as an indicator of how well he is doing. Employee payroll costs will increase as will the dollar amount of service projects he sells. His customer mix will change from a cash only account to a longer term receivable. All of these complexities will require the use of long term (i.e. monthly) financial planning.

The key assets he will need to review

are his inventory and receivable numbers. How many days worth of receivables have not been collected? Is this dollar amount of receivables growing as expected? What is the dollar amount of the oldest receivables? Is inventory growing according to expectations? The other key financial numbers relate to expenses and bottom line profitability. What expense items are rising quicker than sales? Am I making a profit at all? What is my productivity per employee?

Many small business owners do not have the expertise to pull this information from their business operations. That is why an outside advisor will play an increasingly important role to the

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locksmith owner. A small CPA firm (match his company size to yours) will be able to extract the key financial data a business manager needs and, more importantly, put it in a form that is easily understandable. As the business becomes more complex, the need for timely financial review will become critical. A once-a-year review is no longer adequate financial planning. Instead, a quarterly or a more desirable monthly recap is necessary.

One other person will also play an important role with the locksmith business owner: the banker. Establishing a solid relationship with your banker is necessary to ensure sustainable growth for the future. Even if you only use bank financing to a small degree, establishing a good banking relationship sets the groundwork if a need should ever arise in the future. If a crisis hits your business, having established a dialogue with your banker could prove to be the winning margin in getting you through those tough times. Bankers do not like surprises, so keeping them informed of your business activities on a regular basis is important.

**Leadership Duties.** The biggest challenge facing the growing locksmith business will be the owner's (or manag-

er's) ability to manage and direct his organization. One or two-person operations are quickly growing into companies of six or more people, creating a whole list of new problems for business owners. The more important issues fall into the categories of personnel, management, and administrative responsibilities.

Personnel responsibilities tend to be one of the more difficult challenges. As the locksmith owner loses control over direct supervision of his employee, screening applicants to ensure their "fit" into the organization will become necessary. For example, reference checking and skill testing are two methods that will be used to improve the employee selection process.

Another increasing responsibility in personnel will be in the area of training. The limited number of skilled workers are in demand by an ever-growing number of larger lockshops. The result will be higher wages for skilled workers and more pressure on locksmith owners to spend more time developing employees. The common complaint among many locksmith owners is their inability to find good people. The reality is that this problem will only further compound itself, and the new business

owner will be forced to dedicate time to train unskilled or semi-skilled workers.

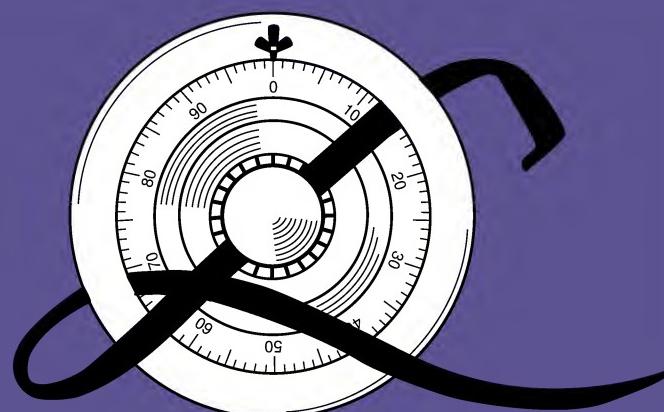
The second leadership category that the locksmith business owner will confront is that of managerial duties. As his organization grows larger and adds employees, the owner must learn new managerial skills if he is to keep his staff pulling as a team.

Communication skills, both verbal and written, will be necessary to keep employees informed of changes in the business environment. The owner will also have to deal effectively with confrontation.

To the traditional confrontation of employer and employee will be added confrontations between employees themselves. In addition, the owner will be asked to serve in the capacity of a consultant, advising employees on subjects ranging from how work should be carried out to personnel employee matters that are affecting job performance.

The most important new managerial function will be for the locksmith manager to create an environment which motivates employees. While the final responsibility for motivation is the employees', the owner or manager has

*Continued on page 154*



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# Fiberoptics By Olympus

"The mini-scope (slightly more than 1/16" diameter) got us out of one tight jam after another. Sometimes you can look into a safe without drilling."

by Dave McOmie

At a recent safe opening seminar that I was involved in, we were fortunate enough to have as our guests two representatives from the Industrial Fiberoptics Division of Olympus Corporation. Mike Hourigan, National Sales Manager, and field technician George Stokely were present to demonstrate the latest in high-tech fiberoptics and borescopy. And demonstrate they did. The truth is that Olympus helped me to look good and contributed largely to the seminar being a smashing success. The quality and variety of their equipment has to be seen and touched to be properly appreciated.

The mini-scope (slightly more than 1/16" diameter) got us out of one tight jam after another. In photograph one, one of my students is using the mini-scope to view the Dexter lock in an old Herring-Farrel. In photograph two, Mike Hourigan is making use of a scope-to-camera adapter to photograph the inside of a Yale 062½ in a Mosler-Bahmann.

Photograph three was taken through the scope. This photograph was taken inside a four-wheel lock. Notice that all four wheels and the fence are clearly visible with room to spare.

Just for fun, we snaked one of their flexible fiberscopes through the key-hole of an imported high security safe and had a look around! In photograph four we are looking right at one of the lower relocking devices—and this was done *without* drilling a hole in the safe!

I am pleased to report that Olympus is going to support our industry by exhibiting at this year's ALOA show in Las Vegas. Be sure and stop by, say hi to Mike, and take a look at the very best in fiberoptics.

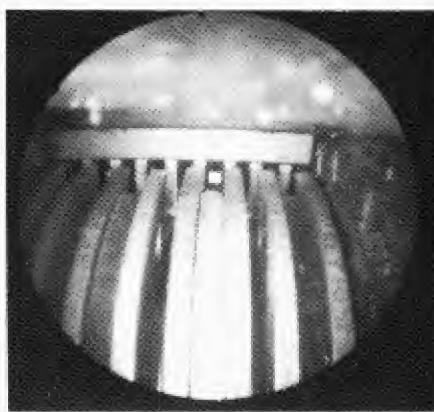
*Editors note: In upcoming months Dave will be reviewing specific Olympus products and giving us his honest appraisal of the equipment. ■*



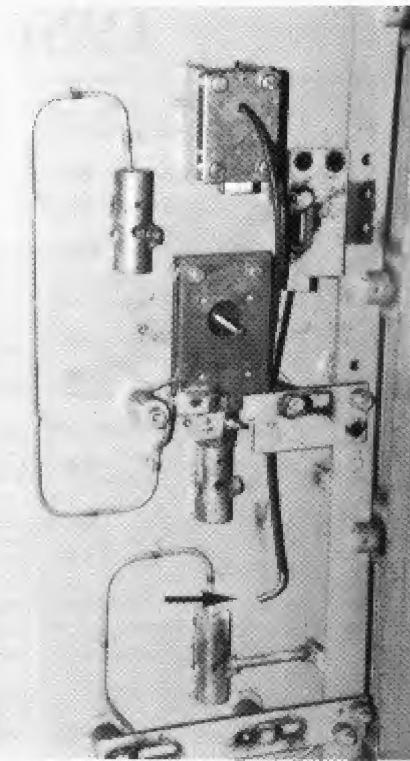
1. Viewing a lock with the Fiberoptics' Mini-scope.



2. Photographing with the use of a scope-to-camera adapter.



3. The inside of a four-wheel lock, seen through the mini-scope.



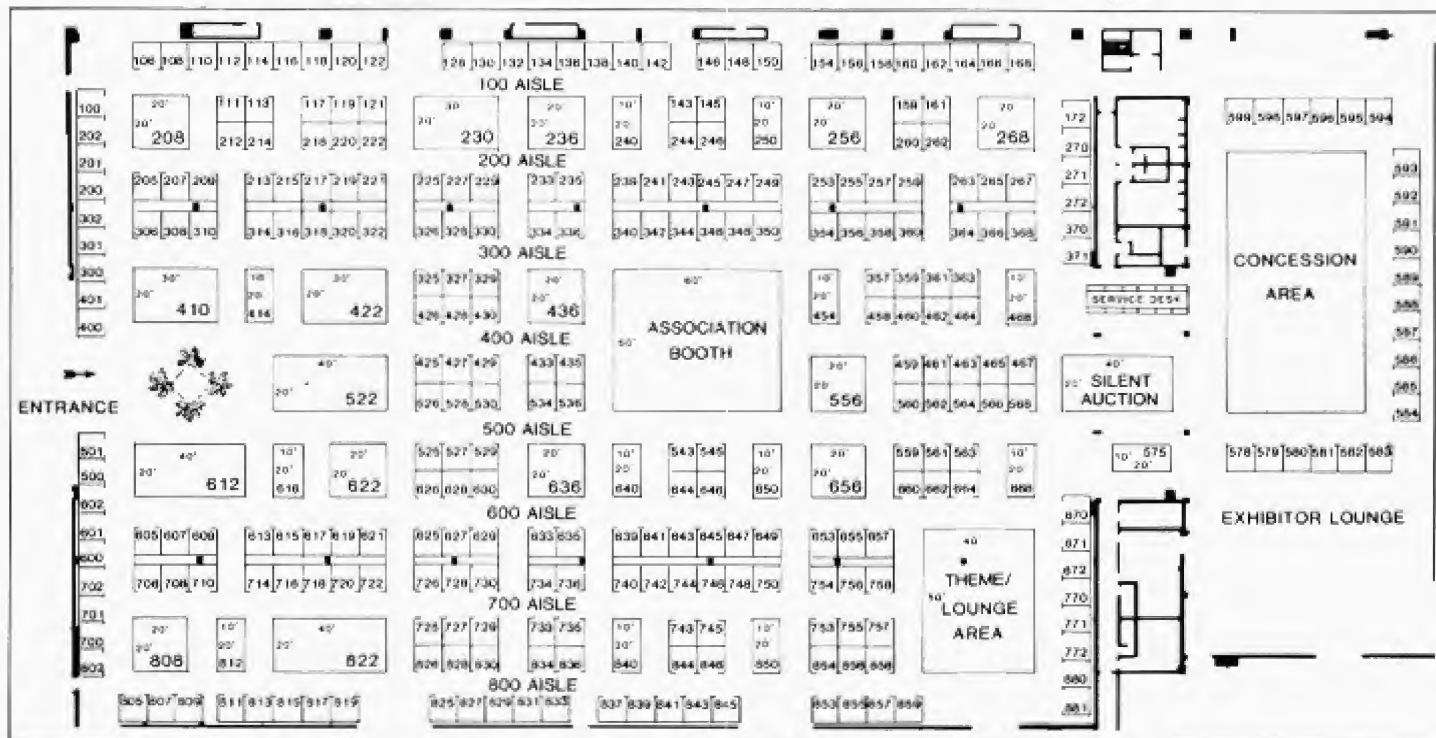
4. Flexible fiberoptics inserted in a high security safe.

# 1988 ALOA Booth Numbers

Showstoppers start on page 71.

|                                      |           |                                       |               |                                       |                   |
|--------------------------------------|-----------|---------------------------------------|---------------|---------------------------------------|-------------------|
| A & B Safe Corporation .....         | 219-221   | Cannon Safe, Inc. ....                | 454           | JLM Wholesale, Inc. ....              | 348               |
| ABC Lock Co. ....                    | 207-209   | Capricorn Electronics, Inc. ....      | 430           | Jet Hardware Mfg. Corp. ....          | 609               |
| ASSA, Inc. ....                      | 370-371   | Chicago Lock Company ....             | 205           | Keedex Manufacturing ....             | 302               |
| AWI, Inc. ....                       | 605       | Continental Instruments Corp. ....    | 213           | Kent-Moore/Borroughs ....             | 356               |
| Aable Locksmiths .....               | 559       | CorKey Control Systems, Inc. ....     | 267           | Key Products ....                     | 617               |
| Abloy Security Locks .....           | 334-336   | Corbin Hardware/Emhart ....           | 325-327       | Key Systems, Inc. ....                | 625               |
| Abus Lock Company .....              | 400-401   | Corporate Safe Specialists, Inc. .... | 459           | Keymak Company ....                   | 364               |
| Adams Rite Mfg. Co. ....             | 650       | Curtis Industries, Inc. ....          | 633-635       | Kustom Key, Inc. ....                 | 366               |
| Adesco Safe Company .....            | 664       | Custom Security Products, Mfg. ....   | 310           | Kwikset Corporation ....              | 460               |
| Adrian Steel Company .....           | 464       | DOM Security Locks ....               | 329           | Lab Security ....                     | 326               |
| Akron Hardware Consultants .....     | 640       | DRK Specialties ....                  | 660           | LCN Closers ....                      | 429               |
| Alarm Lock Corporation .....         | 241 & 243 | Detex Corporation ....                | 615           | LSDA ....                             | 461-463           |
| All-Lock Co., Inc. ....              | 300-301   | Dimark International ....             | 525, 527, 529 | Lexington Brass Corp. ....            | 368               |
| Allied/Gary Safe Company .....       | 263       | Diebold Incorporated ....             | 350           | Lockmasters, Inc. ....                | 410               |
| Allsafe Co., Inc. ....               | 245       | Dugmore and Duncan ....               | 627           | Locksmith Ledger ....                 | 575               |
| American Lock Company .....          | 433-435   | Dynatec International, Inc. ....      | 414           | Lori Lock ....                        | 320-322           |
| American Security Products Co. ....  | 636       | E.O.W. Products, Inc. ....            | 354           | Lucky Line Products, Inc. ....        | 626               |
| American Shield Corporation .....    | 308       | ESP Lock Corp. ....                   | 543-545       | M.D. Kramer Locksmith Supply ....     | 630               |
| American Lock & Supply, Inc. ....    | 436       | Falcon Lock ....                      | 253-255       | M.A.G. Eng. & Mfg. Inc. ....          | 602               |
| Arrow Lock .....                     | 534-536   | Foley Belsaw ....                     | 240           | MIWA ....                             | 647               |
| Auto Security Products .....         | 212-214   | Fort Knox Security Products ....      | 328           | Marks Hardware, Inc. ....             | 227-229           |
| B-E Industries Inc. ....             | 106-108   | Fort Lock Corporation ....            | 344           | Master Lock/Dexter                    |                   |
| Baton Hardware Co. ....              | 346       | Framon Mfg. Co., Inc. ....            | 670           | Lock ....                             | 425-427 & 526-528 |
| Baylis Corporation .....             | 563       | HPC, Inc. ....                        | 422           | Mauer GMBH ....                       | 560               |
| Bell Detection Mirrors .....         | 330       | Hardware Suppliers of                 |               | Medeco Security Locks ....            | 622               |
| Bilock Marketing Ltd. ....           | 566       | America ....                          | 233-235       | Meilink Safe Company ...              | 653, 655, 657     |
| Brady Office Machine Security .....  | 500       | High Tech Tools ....                  | 649           | Monarch Hardware & Mfg. ....          | 644-646           |
| Briggs & Stratton Technologies ..... | 668       | Hill Specialty Products ....          | 607           | National Cabinet Lock ....            | 616               |
| Buddy Security Products .....        | 143       | Horizon Safe Manufacturing ....       | 428           | The National Locksmith ....           | 643-645           |
| C & M Tool .....                     | 628       | Ilco Unican Corporation ....          | 522           | National Security Safe Co., Inc. .... | 222               |
|                                      |           | International Security Products ....  | 639           | Norton Door Controls ....             | 619-621           |

# 1988 ALOA Booth Map



|                                |         |
|--------------------------------|---------|
| Optex USA, Inc.                | 249     |
| P.A.M. Company                 | 318     |
| Pasco International Inc.       | 222     |
| Perry Blackburne, Inc.         | 247     |
| Pro-Lok                        | 100     |
| R & D Tool Company             | 530     |
| Ric Rofu International Corp.   | 468     |
| Rytan, Inc.                    | 218     |
| Safe & Vault Tech. Association | 306     |
| Safeman Supply                 | 465     |
| Sargent & Greenleaf, Inc.      | 556     |
| Sargent Manufacturing Company  | 629     |
| Schlage                        | 656     |
| Schwab Safe Co., Inc.          | 250     |
| Securitech Group, Inc.         | 613     |
| Securitron Magnalock Corp.     | 239     |
| Security Engineering, Inc.     | 568     |
| Sentry Safes                   | 358-360 |
| Simplex Security Systems, Inc. | 467     |
| Solid International            | 562-564 |
| Stanley Hardware               | 770     |
| Star Key & Lock Mfg. Co., Inc. | 501     |
| Strong Arm Security, Inc.      | 225     |
| Supra Products, Inc.           | 426     |
| Synergistics, Inc.             | 262     |
| The Key Connection             | 647     |
| The Locksmith Factory          | 561     |
| Trans World Novelty            | 201     |
| Trine Products Corporation     | 340-342 |
| U.S. Lock Corporation          | 612     |
| Valley Forge Products, Inc.    | 641     |
| Von Duprin, Inc.               | 244     |
| Weiser Lock                    | 257-259 |
| Weslock                        | 246     |
| Winkhaus-Vanguard              | 200     |
| Woodward Mfg. & Sales Co.      | 671-672 |
| Yale Security, Inc.            | 314-316 |

## ALOA Comments

### On ALA

*The following notice was recently issued by ALOA.*

We have received numerous inquiries regarding a recently formed entity calling itself the American Locksmith Association. In order to help correct any misunderstandings that might have been created in connection with that entity and its relationship, if any, with the Associated Locksmiths of America, we wish to advise you as follows:

1. Although the name, initials, and logo of the American Locksmith Association are similar to those of Associated Locksmiths of America, the American Locksmith Association has *no affiliation whatsoever* with ALOA. In response to the confusion that appears to have arisen due to these similarities, ALOA intends to contact the American Locksmith Association and request that it take immediate steps to

change its name and logo so as to prevent any further misunderstandings of this nature. Depending upon the response received, ALOA may need to consider more formal legal action.

2. Our preliminary investigation indicates that the American Locksmith Association is *not* organized as a tax-exempt, not-for-profit corporation, which is the mode of organization for the vast majority of national trade associations and professional societies such as the Associated Locksmiths of America. Based upon records filed

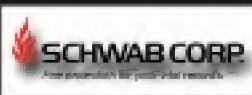
with the Department of State for the State of Tennessee, it appears that the American Locksmiths Association is a sole proprietorship owned by Joseph M. Calvert, Sr.

3. We note that the American Locksmith Association places a notice of federal trademark registration (i.e., "®") adjacent to its logo; however, our preliminary investigation through a third-party professional trademark search firm indicates that the logo has not been granted registration by the U.S. Patent and Trademark Office. ■



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The National Locksmith

STOP

STOPPERS

*The National Locksmith* magazine would like to welcome you to this year's ALOA show whether or not you are attending in person. In this section of Showstoppers you will find products, many of them brand new, to be exhibited this month in Las Vegas.

Along with a photograph of each item is a brief description and a Rapid Reply number. If you are with us in Las Vegas, please stop by the booths of those manufacturers who interest you. If you are not making it to the show,

circle the appropriate Rapid Reply numbers on the Rapid Reply card in the rear of this magazine. That way you'll still get information about these products.

Of course, not everything to be exhibited at the show would fit here, so be aware there's a lot more to see. To the best of our knowledge, the booth numbers on pages 68 and 69 are accurate. However, some of them may change after we've gone to press.

This year, come visit the staff of  
*The National Locksmith* magazine at Booth 643-645!

#### Aable's Patented Inter-Lockit

Aable Locksmiths was issued a patent on the Inter-Lockit Universal Cylinder Protector. This plate will fit virtually any mortise or rim cylinder regardless of the door or lock it is in.

The interlocking feature, eliminates the use of unsightly nuts and bolts, making installation a five minute job. All that is needed is a 5/16" hole through the door.

Inter-Lockit will eliminate the space or lock mechanism problem, which occurs when some plates are used.

#### Aanon's 6000-E Convenience Safe

Aanon Corporation features their popular Safetron Model 6000-E, a burglar resistant safe built for the convenience of the homeowner or hotel guest.

The electronic locking system's four digit combination is easily set by rotating the mechanical thumbwheels on the back of the door. The system rejects unauthorized codes utilizing a unique shut-down feature.



Circle 326 on Rapid Reply

#### ABC Demonstrates Car Opening

ABC Lock Company will be demonstrating their car opening tools on GM cars and trucks at the ALOA convention this year.

The Button Biter and Dog Tooth tools are effective on present models and because of their design they are expected to work on models well into the future.

The Button Biter and Door jack combination do not go down inside the door so they are especially effective when the linkage has been damaged by someone else's attempt to enter the car.

#### Abloy Introduces New Cylinders

Abloy Security Locks introduces a new line of mortise and mortise rim cylinders. The new cylinders are U.L. listed and constructed of solid brass instead of hardened steel.

These competitively priced cylinders were developed for interior applications where a hardened steel cylinder is unnecessary. Drill resistance is provided with carbide inserts and a spinning key section.

The new brass cylinders can keyed to any existing Abloy Disklock® product.



Circle 203 on Rapid Reply



## Adams Rite's Fire-Rated Devices

Adams Rite Manufacturing Co. has introduced their new Series 3000 A-label fire-rated exit devices. The company now provides a full range of A-label and general life safety exit hardware.

The exit devices and trim are now available in a variety of latching and mounting options for wood, metal and glass doors.

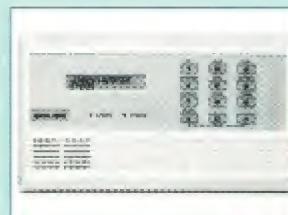


Circle 204 on Rapid Reply

## Ademco's Vista Communicator

Ademco's 513XT Alpha Vista self-contained control communicator features a 32-character programmable English LCD display, 13 zones (9 wired) expandable to 22 (18 wired), 15 user codes, downloading and remote control, built-in UL sounder, "on-screen" operating instructions, simple keypad programming, 10-day alarm history and much more.

The Vista series is the first line of burglar/fire alarm controls based on a 16-bit microprocessor, giving it more features in less space.



Circle 205 on Rapid Reply

## Adrian Steel Exhibits Equipment

Adrian Steel will exhibit its modular line of service van interior equipment at the ALOA Show in Las Vegas this July. Adrian Steel features a modular line of steel drawer units, cabinets, bins, shelving, workbenches, safety/security partitions, ladder racks and accessory items.

The modular design of this equipment allows you to custom arrange an interior to meet your personal requirements. Adrian Steel has interior equipment designed to fit GM, Ford and Chrysler full size and mini vans.



Circle 206 on Rapid Reply

## Aero Lock's 'Optical Tool'

Aero Lock is introducing the "Key Scope", an 8-power monocular specially designed for close focusing. It will give you very sharp image at the typical 3 to 4 foot distance from the passenger car door to ignition lock.

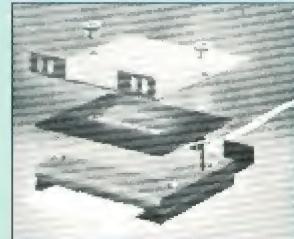
Key Scope is for those situations when the car door key is visible inside the locked car, but not quite clearly enough to determine the cuts. Key Scope will allow you to focus on the key and "read" the cuts.



Circle 207 on Rapid Reply

## Allsafe Introduces Card-Reader

The Allsafe Company announces the immediate availability of its new AS-111 Card Reader. This unit is a mechanical access control card reader that is reliable yet low in cost. This item is geared for low budget installations where the security of card access control is desired but the high price of traditional card access control system is unacceptable. The unit requires no power to operate and changing which cards are allowed access can be accomplished in less than a minute by changing a codeboard.



Circle 208 on Rapid Reply

## American Lock's Colored Locks

American Lock Company has introduced a complete new line of brightly colored padlocks, aimed primarily at the growing sports and fitness consumer market. These are available in bright red, electric blue and sunburst gold.

The new colored locks will have American's famous double steel ball locking system. Other important features are: corrosion resistant bodies, hardened steel shackles and American's lifetime warranty.



Circle 209 on Rapid Reply

## American Shield Adds Fire Rating

American Shield Corporation announces the addition of the JPM F90 Series exit devices to its line of product. The F90 push bar device is listed with Underwriters Laboratories in the United States and Canada, as well as the California Fire Marshal, for fire hazard applications. The rating covers doors to a full 4'0" by 8'0" in size.

The JPM F90 Series comes in aluminum and duranodic epoxy finishes. Other painted and plated finishes are available.



Circle 210 on Rapid Reply

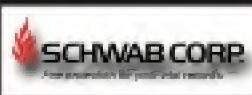
## Interchangeable Cores From Arrow

Removable cores, from Arrow Lock help reduce the problems caused by lost or stolen keys or unauthorized key duplication.

The cores are designed to insure security flexibility at the least possible cost. The Arrow system utilizes a control key to remove the cylinder, enabling the user to change or rekey the cores by hand. The new core is pushed into position after the old is removed, and automatically locks into the housing. The existing lock itself never needs to be removed or disassembled.



Circle 211 on Rapid Reply



Don't panic!

We have Security  
Exit Devices.

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### Audio Alert's Door Announcers

The ChimeAlert™ from Audio Alert fills the needs of people who want to know when visitors enter or exit their business or homes.

ChimeAlert™ is operated by a magnetic process requiring no batteries or electricity. Two permanent magnets provide all the power that is needed. There's no need for electrical circuits or changing batteries.

The chime can be turned on and off and the volume is adjustable. Complete instructions are included.

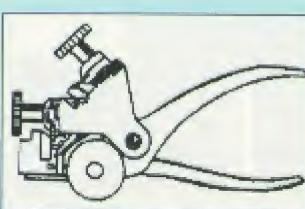


Circle 213 on Rapid Reply

### Auto-Security's Aries Clipper

The new Aries Key Clipper is based on the design of the old Schlage pin tumbler key clipper which has been out of production for many years. But unlike the Schlage clipper, the Aries is designed so that the depth wheel may be changed in seconds, thus enabling it to cut most normal cylinder or automotive keys.

The Aries can also duplicate from a pattern key.



Circle 214 on Rapid Reply

### AWI's Complete Cylinder Line

AWI Inc. provides a variety of cylinders for many needs including mortise, rim, key-in-knob, cash box, thumb-turn and dummy.

They also now offer the bar brass replacement cylinders in 20 popular keyways. In addition, they make Welch cylinder and mortise deadlocks as well as File Guard, the file cabinet locking bar.



Circle 215 on Rapid Reply

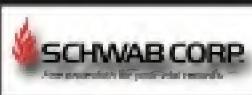
### Baldwin's New Designer Line

Baldwin Hardware Corporation has announced the introduction of a series of high quality deadbolts with traditional and contemporary design options.

Baldwin offers a selection of turnpieces which make these deadbolts compatible with a variety of lock trims on the market. Made of solid hot forged brass they are offered in a variety of finishes, including polished brass, polished chrome, antique brass, brushed chrome, and oil rubbed bronze.



Circle 216 on Rapid Reply



The National Locksmith

### Briggs & Stratton's Black Cap Locksets

Replacement locksets with black case caps are now available from Briggs & Stratton. The caps on these products feature a new durable black Trico paint finish.

As a special offer, the factory has boxed an assortment of coded locks to service this need with a free GM black standard ignition, free GM black standard rear compartment lock and a collector's edition baseball cap.

The special offer is packaged at an introductory price through July 30th.



Circle 217 on Rapid Reply

### Business Security's Technalock

Technalock from Business Security Systems, Corp., is a low-cost way to secure moveable equipment from theft. Pressure-sensitive adhesive bonds a strong securing plate to the equipment, and a tough, flexible vinyl-coated steel cable and a lock completes the system.

Technalock can be installed out of sight at the rear of equipment and desks in minutes, without tools. This product does not void equipment warranties.



Circle 218 on Rapid Reply

### Cannon Safe's Model 23

The Model 23 is the big brother to the Model 12. It utilizes the same locking mechanism, and construction as other Cannon models. This safe is painted with a black stipple finish, and silver pinstriping.

Also the Cannon Eagle gives the safe an attractive antique appearance. The interiors are designed not only for guns, cameras, VCR's, mini computers, but almost anything you would desire to protect.

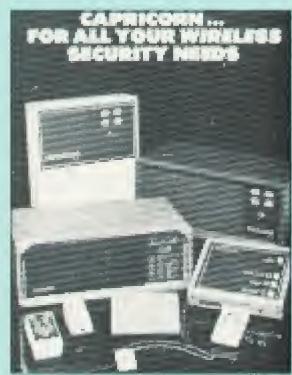


Circle 219 on Rapid Reply

### Capricorn's Dual Security System

Capricorn Electronics Inc. manufactures combination wireless/hardwire security systems which provide intrusion, fire, panic and medical protection. The controls can be used as a wireless system only or as a combination of wireless and hardwire.

Performance and quality tests are conducted at different stages of the manufacturing process to assure a good performing security system when installed by a professional.

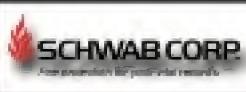


Circle 220 on Rapid Reply



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the World of  
Auto Locks

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## Rekeyables From CCL

C.C.L. recently introduced a new series of rekeyable pin tumbler cabinet locks. A single set screw located on the barrel of the lock allows for easy removal of the solid brass cylinder and plug from the pre-assembled housing. Disengaging the retainer and use of a standard follower quickly removes the plug from the cylinder allowing for fast and efficient re-keying of the lock.



Circle 222 on Rapid Reply

## CardAccess® 400 By Continental Instr.

Continental Instruments Corporation presents the CardAccess® 400, an easy to program and operate Access Control system.

The system contains built-in pop-up windows, held windows, and data description windows. With simple, direct commands and prompts in plain English, CardAccess 400 speaks your language. Operators need not learn another language and manuals are unnecessary. The color CRT will guide an operator through any procedure.

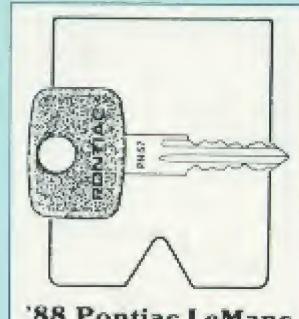


Circle 223 on Rapid Reply

## Cont'l. Micro's Auto Code Cards

Continental Micro has announced five new code cards. Included are Sterling/Ford Trucks, 1988 Jaguar 10 Disc, Yugo secondary for G3001 + code, Cadillac Allante secondary for VA code, and 1988+ Pontiac LeMans.

Each code card includes important key cutting information as in the past. A second new batch will be announced shortly. These will cover the latest key-by-code requirements for Toyota, Honda, Mitsubishi & Eagle/Renault.



'88 Pontiac LeMans

Circle 224 on Rapid Reply

## Corby Industries' Access Control

Corby Industries, Inc. System 3 is one-door access control system with 255 user-selectable codes. It is used to control any door strike, burglar alarm control or any other electrical/electronic device.

A built-in heavy-duty relay is programmable for latching or timed momentary for up to 20 seconds. Electronic panel may be located up to 500 feet from reader.

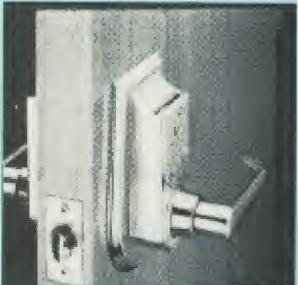


Circle 225 on Rapid Reply

## 700 Series Locks From CorKey

CorKey Control Systems, Inc., offers the 700 series locks with the lock functions available: store room, entrance, office and classroom, with handles or knobs as well as tubular deadbolts and rims with knobs.

These new locks have an easy one-hand operation. The magnetically coded steel or plastic CorKey is inserted into the slot and the key is retained by the lock until removed. This allows the free turning knob or lever to then retract the latch or throw the bolt.



Circle 226 on Rapid Reply

## Detroit Mini-Safe Protects Cash

Businesses involved in the collection of cash, are realizing the protection provided by deposit safes manufactured by Detroit Mini-Safe company.

As collections are received, the operator inserts the cash through a slot in the all-steel welded deposit safe which is permanently affixed to the floor of the truck. The contents can only be removed by using two keys. One retained by the operator and the other by company management.

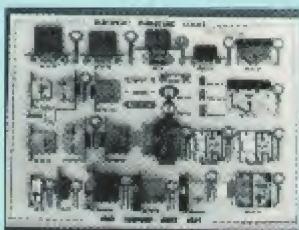


Circle 227 on Rapid Reply

## DiMark's Antique Furniture Locks

Antique-style furniture locks are available from DiMark International. To simplify your sales, the locks are available blister-packed on heavy stock and labeled (without pricing) so that your customer can easily match his sample lock to one on the display.

Included are 21 locks (some with special strikes), 4 multi-purpose strikes, door and drawer escutcheons, and 3 sizes of brass keyholes.



Circle 228 on Rapid Reply

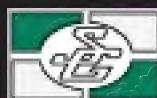
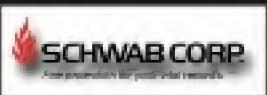
## DRK Supplies Sonica Keyfinder

DRK Specialties, a distributor of key rings and other related items, offers the Sonica sensor beam keyfinder.

The Sonica is a two part unit with a credit card sized transmitter that you carry with you and the separate key holder. When trying to locate your keys press and hold on the bar of the keyfinder transmitter and keychain will emit a beeping sound.



Circle 229 on Rapid Reply



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### Security Guard By Dynatec Int'l.

Security Guard, from Dynatec International, Inc., is an affordable electronic crime deterrent that simulates a high cost, real alarm system.

Security Guard uses real alarm grade components: stainless steel face plate and a real lock and keys. A warning label and two AA batteries are included. A blinking light simulates "alarmed and set" mode. Even professionals have difficulty telling the difference. The appearance of Security Guard should deter thieves without the cost of a high price system.

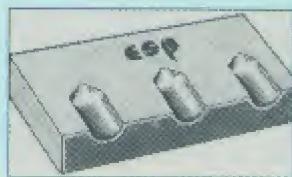


Circle 251 on Rapid Reply

### ESP's Tubular Key Stamping Tool

ESP Corporation recently introduced the Tubular Key Stamping Block, No. TSB-3. The TSB-3 provides a solid surface for stamping the heads of tubular keys.

Made from solid steel and measuring only 3" x 1½" x ½", the TSB-3 features 3 precise grooves on the top in which the barrel of the key rests. The head of the key lies on the flat steel surface, making the job easier and safer than using the side of a bench.



Circle 252 on Rapid Reply

### The Grandmaster™ From Facilitrac

The Grandmaster™ Computerized Key Management System from Facilitrac is software which can track a virtually unlimited number of locks, keys and all related information using an IBM XT/AT or compatible personal computer.

It's completely user friendly, easy to install and simple to set up, and it adapts to your existing ID system and lock hardware.

Grandmaster contains user definable security protection. It produces 14 reports.



Circle 253 on Rapid Reply

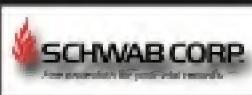
### General Tool & Die Panic Bar Retainer

A new product from General Tool & Die Co., Inc. helps when panic hardware been damaged by improperly dogging down only one side of the crossbar as well as many other situations involving panic hardware.

The Panic Bar Retainer allows you to hold the panic bar in the unlocked position by simply placing the hook over the depressed crossbar. Models are available to fit most styles of panic hardware and can be installed on wood, metal and glass doors.



Circle 254 on Rapid Reply



### Hampton Locks Lock-Box Line

Hampton Lock Co., Inc. provides a complete line of Lock-Box products to cover about any situation requiring key control, valuables, credit cards, travel needs, messages, and latch key kit concerns.

Heading up this exciting new product line is the LB100...the only patented double locking system on the market. With this model an inner key will lock the box securely to a fixed fixture such as a door knob or pipe.



**Circle 255 on Rapid Reply**

### Harrison Elec. Vehicle Security

Harrison Electronics a manufacturer of vehicle security systems features the 8100, an easy to install, full feature remote-controlled vehicle alarm. It includes radio frequency remote transmitters, flashing LED and audible status indicators, remote emergency panic, electronic entry point monitoring and a starter disabler.

All Harrison remote arming and passive automatic arming alarms come with complete dealer support including merchandising materials and toll-free technical assistance.



**Circle 257 on Rapid Reply**

### Harloc Product Builder's Lockset

Harloc Commercial Corporation's 6900 Premium Series is a cylindrical lock for both high-end residential and medium duty commercial applications, engineered to meet the requirements of the commercial market.

Those locksets are furnished in Schlage C keyway standard and will also accept the standard Schlage A cylinder and can be supplied in most major manufacturer's keyways. The lock allows easy cylinder removal for rekeying or replacement.



**Circle 256 on Rapid Reply**

### HEWI Presents Door Hardware

The HEWI door hardware program now includes lever handles and thumb-turns, a tubular passage latch and privacy deadbolt. The passage latch and the lever handles are U.L. approved, and lever handles are available in two basic styles, either U-shaped or half-circular.

The tubular latch is designed with heavy springing for use with the steel core lever handles, providing retraction of the  $\frac{1}{2}$ " bolt with  $28^\circ$  rotation of the hub.

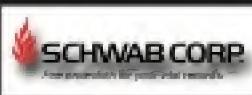


**Circle 258 on Rapid Reply**

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**SRI and Tech Train Productions are the automotive specialists - your best source for automotive tools, manuals, and videos.**

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## HighTech's New Summer Catalog

High Tech Tools will be releasing its new summer catalog. The catalog contains a great variety of tools and other items from A-1 Security, Keedex, and other companies. They also offer their car opening tool set, the model 1600, as well as High Tech's own products.

High Tech is giving away a trip for two to the Bahamas. To enter, or to get your free catalog just write to High Tech Tools.

### High Tech Tools 1988 Locksmith Catalog



Tools for the Security Industry

Circle 259 on Rapid Reply

## HPC Revises '88 Code Books

The two-volume set of HPC General Code Books (HGCB-1) is the completely revised 1988 edition of the former HGCB. Over 600 new pages of information have been added to these reference books for a total of 1,600 pages, containing well over 700,000 codes.

The Foreign Automobile Code Books (HFBC-3) are also revised with over 700 new pages of information totaling 1,200 pages. The revised Foreign Auto Code Book contains well over 500,000 codes, including the hard-to-find direct digit variety.



Circle 260 on Rapid Reply

## Hughes New Tubular Lock

Hughes Lock Company announces a new tubular lock which measures up to the new standards in high security. Because of its grooved pins and hidden wafer design, we call it the V-H Multi-Axial Locking System.

The tubular lock that you are familiar with has been easy to pick, but this tubular lock is quite pick-resistant. The lock design has nearly two billion pin combinations available. Designed into each lock are false shear-lines and many pin traps which make the picking process nearly an impossibility.



Circle 261 on Rapid Reply

## J & B Key Rite's Depth Indicator

The Jefferson Key Depth Indicator from J & B Key Rite Mfg. is a device for fast and accurate measuring of the depth of key cuts.

Unlike the micrometer, the digital micrometer or dial caliper, the key depth indicator differs more because a pressure spring is used to precision seat the tip in each cut. The solid brass anvil has a split-ledge for Ford and similar keys.

The large dial gives instant reading with simplicity which the beginner will appreciate.



Circle 262 on Rapid Reply



## SCHWAB CORP.

*Fire protection for your vital records.*

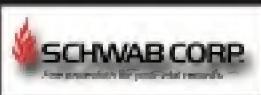
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information



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Comptronic locks your  
choice for electronic safe  
locking solutions.**

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### Jet's New Unibow Line

Jet Hardware announces the "Unibow" line of key blanks.

The Unibow system features non-descriptive, neutered blanks, which are sized for all applications. Unibow is available in four styles: personalized, with your imprint; custom, incised with your client's imprints; Do Not Duplicate, and Blank.

Jet also has available two new semi-automatic key machines which will be displayed for the first time at the A.L.O.A. 1988 show.

**Circle 263 on Rapid Reply**

### Key Control's Computer Systems

Key Control Systems, Inc. develops computerized key control systems to maintain key identification, issue and return data on a computer and to assist in controlling dissemination of keys, as well as maintaining security in the record keeping aspects of key control.

Their software will function on most computers. Consequently, the keying department may share the organization's main computer or utilize a dedicated microcomputer.

**Circle 264 on Rapid Reply**

### Entrance Lockset By Kwikset

Kwikset Corporation announces the availability of their new Series 500 Premium Entrance Lockset.

The Premium Entrance Lockset was designed to provide extra strength and security in high traffic areas. The Series 500 Locksets include features such as a panic-free operation on the interior knob, a solid steel reinforcing plate to protect the spindle assembly, a reversible deadlatch with a  $\frac{1}{2}$ " throw solid brass latchbolt which is beveled for easier closing action.



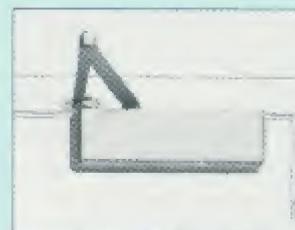
**Circle 265 on Rapid Reply**

### LCN's 4-Way Super Smoothee®

The 4040 Series of Super Smoothee® non-sized, non-handed door closers designed and manufactured by LCN Closers is a line of heavy-duty cast iron closers that can be mounted in any one of four ways.

Closers in the Super Smoothee Series control interior and exterior doors, providing complete door control and effective back check for each mounting location.

Each 4040 Series closer features field-adjustable spring power, allowing sizing from 2 through 6.



**Circle 266 on Rapid Reply**



National Auto Lock Service, Inc. offers a wide range of equipment and services for the Automotive Locksmith. From tools and hard to find key blanks to transponder programming, we can take the mystery out of car service. We accept credit card orders, and can ship COD. Contact us for the latest in automotive technology.

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**SRI**  
SECURITY  
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The  
National  
Locksmith

### Lindustries' Adaptor Aids Handicapped

An easy to install, lever handle that fits over most door knobs to make opening doors a simple push motion instead of twisting, which can be difficult for elderly or handicapped people, is available from Lindustries, Inc.

Upon request, you can receive two publications containing sales information titled: "The Way To Sell Leveron," and "Questions Asked and Answered About Leveron". Lindustries also has a free vacation for two offer for retail locksmiths.



Circle 269 on Rapid Reply

### Cylinder Padlocks By Lori Lock

Lori Lock introduces their new 1400 series line of removable cylinder padlocks. Made in U.S.A., the solid brass, 1 1/4" body padlocks feature removable cylinder convenience in over 20 popular keyways including Kaba gemini high security.

The Kaba key-in-knob cylinders for fast rekeying.

Other features of the key retaining padlock include: ball locking heel and toe security plus a 1 1/4" or 3" shackle made of hardened steel, stainless steel or solid brass.

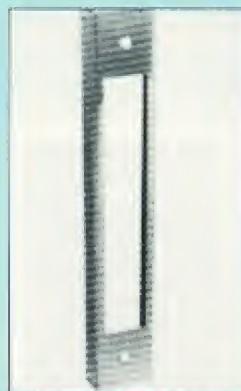


Circle 270 on Rapid Reply

### M.A.G.'s 9000 Uni-Force Guard

A new security product has been developed by MAG Engineering to provide door reinforcement for either a deadbolt, lockset or mortise lock called 9000 Series Uni-Force; it makes the door as strong as the lock.

This patented series was engineered to guard against forced entry accomplished primarily through the means of kicking in a door.

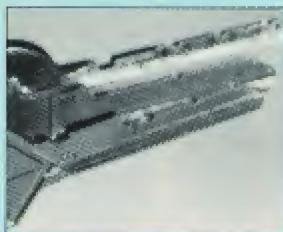


Circle 271 on Rapid Reply

### Martin Company Key Blanks

The Martin Company of Ontario Canada offers their impressioning key blanks to use in the "Martin Method" of impressioning lock. The procedure is as follows.

The first "shake" on the Ford trunk key (pictured below) has left three deep impression marks in positions one, three, and five. These marks must be filed until they "almost" disappear. The light mark in the fourth position is ignored. The same goes for the Schlage and Chrysler key shown.



Circle 272 on Rapid Reply

### Free Toolbox With Master and Dexter

Master Lock is offering locksmiths free, heavy-duty steel toolboxes with lift-out trays for qualifying order of Master and Dexter by Master Lock products.

To qualify, orders must be placed between June 28 and September 15, 1988, purchases must total at least \$200, and 25 percent of the order must be for Dexter by Master Lock products.

Locksmiths will receive a free 16" toolbox with a qualifying \$200 order, and a free 20" toolbox with a qualifying \$400 order.



Circle 273 on Rapid Reply

### MDS Announces Battery Charger

Medical Diagnostic Services, Inc. (MDS) announces the availability of a 3.6 volt nickel cadmium battery recharger system to compliment their Focuscope™ line of accessories.

According to the manufacturer, their new system consists of the following components: A 3.6V battery pack which may be recharged over 1,000 times and fits all Riester and Welch Allyn handles; Krypton pre-focused lamp assembly which fits all Focuscope™/Otoscope attachments providing over 40% more light.



Circle 274 on Rapid Reply

### Meilink's New Mixed-Media Safe

Meilink Safe Company has introduced an additional model to its line of data safes, which combines protection for both paper records such as computer printouts and more sensitive EDP media. The upper compartment of the Model 215MX measures 21" high and can accommodate printouts in binders or with an optional rod, printouts with center-hung binders can be accommodated.

The lower compartment rated for 150°F protection can store a variety of tapes, floppy disks and disk packs.



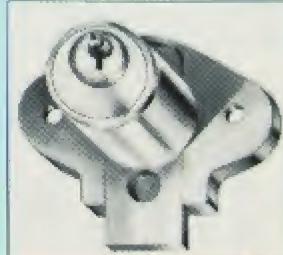
Circle 275 on Rapid Reply

### National Cabinet Lock Expands Line

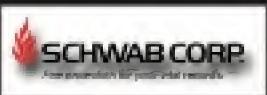
Stock Locks line from National Cabinet Lock expands with a new diamond back drawer lock.

This diamond lock is different from an ordinary pin tumbler lock because if rekeying is required, the cylinder is removed from lock housing without having to take the lock off from the drawer. Keying is compatible with other National Lock pin tumbler locks.

The new locks are available in Satin Brass and Dull Chrome (brushed) finishes.



Circle 276 on Rapid Reply



## New England Safe's Key Operated Unit

New England Safe Co. presents a key operated safe which allows you to change the key combination immediately. The safe is specifically designed for internal control for temporary deposits of cash and checks made during day or night operations.

Four models are available with either slot or shutter openings, and protective baffle teeth and relocking device. Safes have pre-drilled bolt down holes and lock housing will accept Arrow, Best, Eagle, and Falcon Interchangeable Cores.



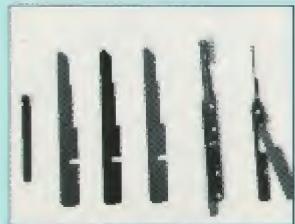
Circle 277 on Rapid Reply

## R & D's GM Sidebar Picks

The R & D Tool Company's GM sidebar pick set has been called original and an advancement to lock picking, by the U.S. patent office.

They have recently developed a vibrator and 12 V battery pack to be used with their tools. This is used to finish picking the sidebar lock.

Also available is a twelve minute video tape to show how to master the technique of using these pick tools.



Circle 281 on Rapid Reply

## NKL Safe Co.'s Cash Flow Control

The BSM 301816-E is a "B" rated money safe from NKL Safe Company which offers efficient cash flow control.

This safe has 1, 2, 3 slot configurations to meet various operational needs. Each slot has a separate section in an inner compartment. This allows each shift or operator to have his own slot for individual drop/deposits which are protected inside the inner compartment by a dual key lock.

The outer door has a group II, U.L. listed combination lock.



Circle 278 on Rapid Reply

## Rofu Introduces Keymax 2001

Rofu International Corporation announces the introduction of a new keyless digital access control system, the Keymax 2001 series.

This system consists of three components: a controller, a touch pad and an interface/terminal box. The controller is easily programmable with one to eight digit long master and user codes and can store 72 or 160 (standard) or 320 (optional) codes and records. The unit has a built-in battery back-up system. Memory can be recalled via the display or the optional 12 column dot-matrix printer.

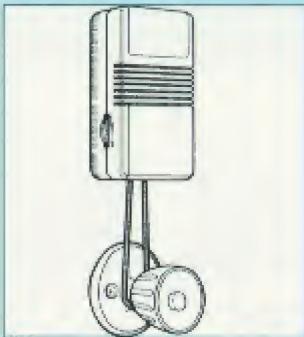


Circle 282 on Rapid Reply

## Peterzell 3-in-1 Touch Alarm

For both home and personal security, the 3-in-1 Touch Alarm from The Peterzell Co., hangs on the doorknob. It instantly sounds a loud, penetrating alarm noise whenever the doorknob is touched. In addition to the noise, a flashing light is set off that is synchronized with the pulsating alarm; a real help for the hearing impaired.

The touch alarm may be carried by hand and used as a street alarm by a push of the switch.



Circle 279 on Rapid Reply

## R.Q. Associates' Lighting Devices

Specializing in flexible lighting devices R.Q. Associates offers their new AC 110V transformer with rheostat, a 10' cable and a power handle.

Fiber optic probes are another new product. They also offer lamps including: broad spectrum, Krypton, Grain of Wheat, pre-focus optical lens and high intensity.



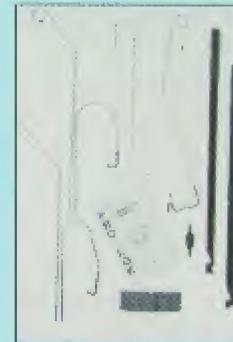
Circle 283 on Rapid Reply

## Pro-Lock Shows Krypton At ALOA

Pro-Lok will be demonstrating lockout procedures at the ALOA show.

A new item that will be featured is the 3 cell Krypton auto light. The light is used to see the linkage inside the door panel. The bulb is gas filled and is 2½ times brighter than other lights.

Other items to be featured are the car opening encyclopedias and pocket pen lights.



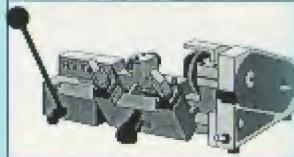
Circle 280 on Rapid Reply

## Semi-Automatic Rytan RY100

The model RY100 is an American-made semi-automatic key machine designed for shop or van use from Rytan, Inc.

Features of this machine include: High speed stick-shift design, large HSS cutter, ball bearing cutter shaft, and powerful A.C. motor that works on Redline with D.C. motor available.

It also has built-in full function key gauges, built-in cutter shaft lock, wide spaced vises accommodate large keys, reversible quick change top vises, and much more.



Circle 284 on Rapid Reply

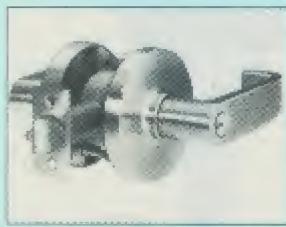


## Sargent 10 Line Cylinder Locksets

Sargent Manufacturing Company has introduced its 10 Line Heavy Duty Cylindrical Key-In-Lever Lockset.

It features a lockbody secured to the door with mounting plates and through-bolted attachments. Handles are maintained with individual spring cartridges rather than retractor springs.

The trim conforms to national and state handicapped requirements.



Circle 285 on Rapid Reply

## Scotsman Security's DorGard™ Products

The DorGard™ Line from Scotsman Security Products offers aluminum narrow stile storefront door security in a variety of applications.

DorGard I fortifies rim or flush mounted mortise cylinders. DorGard II is a steel box which completely encases the mortise cylinder of a narrow stile aluminum door. An extension of that, DorGard III protects the latch area as well.

DorGard IV and V offer total protection for double and single narrow stile doors.



Circle 289 on Rapid Reply

## S & G Introduces New Flexi-Dial

The Flexi-Dial, now available from Sargent & Greenleaf, is a one-piece dial and ring designed for use with all 6700 series combination locks. Front reading and spy-proof models are available.

The recessed dial, with a built-in handle, allows greater clearance for mounting on walls safes and inner safe doors. The Flexi-Dial is mounted with adhesive backing, for fast installation. Dials can be easily replaced in the field.

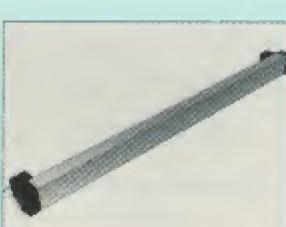


Circle 286 on Rapid Reply

## Securitron's Electronic Bar

Securitron Corporation introduces an electronic touch-sensitive exit bar that has no moving parts to wear out. A touch, even with gloves, activates a sensor to release the door's electric lock.

Model TSB-1 is fit for card reader applications, delayed or alarmed exit, and meets the "no prior knowledge" egress requirements found in many building codes.



Circle 290 on Rapid Reply

## Schwab Protects With Media Mngr.

Schwab's Safe Company introduces another protective office product. The Media Manager offers two levels of protection for vital information used at a work station or P.C. station.

The top drawer is U.L. certified to protect paper documents from fire. The bottom drawer is U.L. certified to protect computer media from fire, excess humidity, and magnetic interference.



Circle 287 on Rapid Reply

## Security Eng.'s Intel Series #3940

Security Engineering, Inc. reintroduces the #3940 Intel Series electromagnetic door lock which combines space-age motion detection exit sensors with Security Engineering, Inc.'s proven #3900 Series electromagnetic lock.

The primary ultrasonic exit sensor projects a fan shaped detection screen downwards spanning 2/3 of the door width stopping short of the floor, and an optional secondary passive infra-red screen, similar in shape, is available for additional security.



Circle 291 on Rapid Reply

## Silca Announces Neuter Bow Blanks

Silca has announced that they and HPC, Inc. will premier a new line of neuter bow key blanks which will be available only to locksmiths. The blanks—to be shown for the first time at ALOA—cover all the popular keyways. Additionally, they will be available for personalized coining for locksmiths.

Also of note is that Silca has published its first key blank catalog for exclusive use in North America. It is divided into four sections, detailing the Silca line of domestic house, domestic auto, foreign auto and special section blanks. You will be able to obtain full details from the HPC booth #422 in Las Vegas.

Circle 288 on Rapid Reply

## Sentry® Introduces Fire-Safe™

A new, highly protective office file, is being introduced by Sentry Group. The Sentry Fire-Safe Office File Model 6000 has been designed to be much lighter in weight and lower priced than competitive models on the market.

Weighing 170 pounds, the Sentry two-drawer unit features patented seamless construction, and is equipped with Accuride™ drawer slides. All the file's walls are filled with highly effective insulation; and extra insulation has been built into the corners.



Circle 292 on Rapid Reply



### Simplex Controls Narrow Stile Doors

The series 3000 push-button combination access control for narrow stile doors from Simplex Security Systems lets your customer control day/night access. It integrates the existing key cylinder for management's use as a key bypass, to activate the latch holdback function and to lock out the combination code.

The Series 3000 operates with Adams Rite 4510 and 4710 Series latches (31/32" and 1 1/8" backsets) which may have been previously installed on the door.



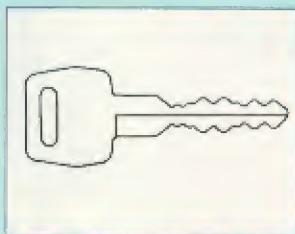
Circle 293 on Rapid Reply

### Southern State Exhibits Tools

Southern State Technology's SST-1 Ford sidebar ignition kit and their Astro Van opening tool (HK-2) will be on display and sold by Key Connection at the ALOA convention.

The SST-1 Ford sidebar ignition kit will defeat the ignition lock, so that the lock may be taken out of the car and a key made.

With the Astro Van tool (HK-2) you will be able to open this vehicle and the GMC Safari Van in less than a minute. Complete instructions are provided.



Circle 294 on Rapid Reply

### Stanley Hardware Offers Pivots

Stanley Hardware is now offering an extensive line of pivot products.

Stanley has created a special product, the Pivot Reinforced Hinge, to meet specific needs at doorways with overhead stops. The Pivot Reinforced Hinge was especially designed for applications when doors are in extra hard use, such as in schools and public buildings.

Some of Stanley's other popular pivots are: the DAP/Hospital Rescue Pivot, the Heavy-Duty 327 Wardrobe Pivot, and Case-work Pivots 331, 332-335.

### New Star Key '88 Additions

Star Key announces the addition of major all-brass key blanks to its extensive line, including General Motors and Foreign car key blanks for 1988.

Star #HBR15C fits General Motors ignition locks for 1988 (Ilco #P1098CV, N/C #B63). Star #HN7 and #TO4 fit 1988 Honda and Toyota respectively (Ilco #X172 and #X174, N/C #HD88 and #TR40). Star #5HR1 fits Harloc Ilco #1041C, N/C #H R 1). Star #OBR14D continues to fit GM trunk locks for 1988 (same as for 1987).



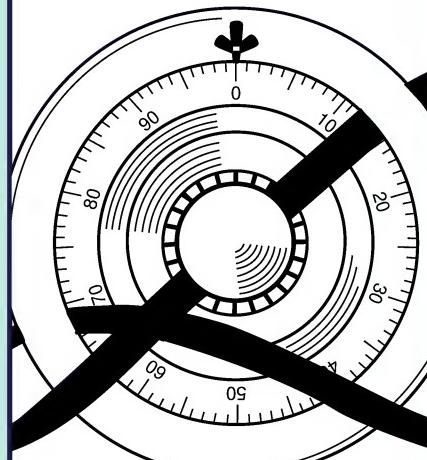
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## A New Digital Caliper

"I have a passion for locksmithing that I don't think I even understand. One reason is that I get to possess fantastic gadgets."



by Rick Ohmit

I have a passion for locksmithing that I don't think I even understand, but I do understand that persons involved with this craft or profession have wonderful opportunities. Just one of these opportunities is the ability to own and possess fantastic gadgets.

Some of us will take all of these wonderful tools for granted while others (like me) relish each new toy to the point of obsession.

Now before you write me off as a genuine weird person let me remind you of the fantastic gadgets and toys of yesteryear, such as the Slim Jim or Curtis #15 code clipper. Some new gadgets that come to the marketplace are so good that they will become indispensable almost overnight.

I discovered one such tool almost by accident. Some time ago I was on the phone with my local distributor and just happened to ask if he might have any new tools. "Yes!" he said, "we just

got a few Mitutoyo digital calipers in from Continental Micro and they look great."

The next day when the order arrived I played with the digital caliper for a moment then placed it on the main pinning bench and more or less forgot about it. But not for long. Two days later my wife and an employee were in my office wanting to know when the new digital slide things would be in for the service trucks!

After you use one of these electronic calipers for a time it just seems impossible to go back to the micrometer style of measuring device. (*See illustration I.*) The manufacturer was not content



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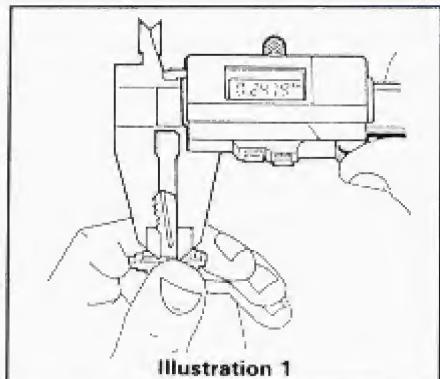


Illustration 1

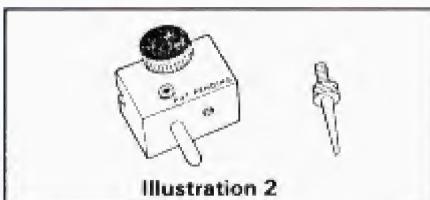


Illustration 2

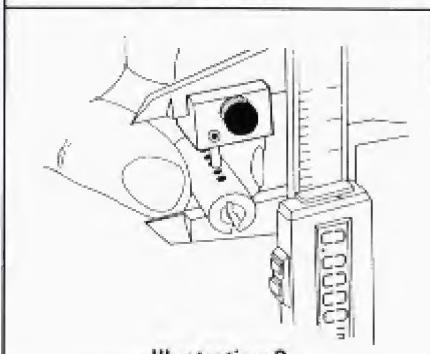


Illustration 3

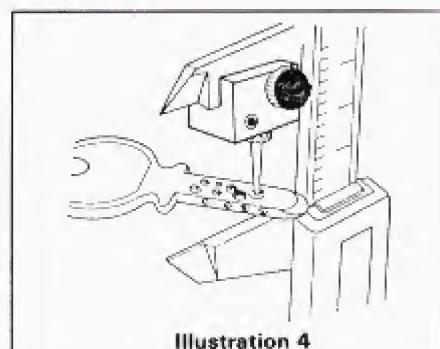


Illustration 4

with the device however. He could see a way to make it even more useful so he designed an attachment to measure the exact pin length required to achieve the perfect shear line in just the blink of an eye. (See illustration 2.)

Continental Micro probe attachment part #MIT499A mounts easily to new or old Mitutoyo calipers by merely tightening one thumb screw. To use the caliper with probe, start by inserting a cut key into the plug and measure the

total plug diameter between the bottom of the key blade and the web between pin cells then push the zero reset button. (See illustration 3.) Now lower the probe into each cell, resting

the probe tip on the key's pin seat and record each reading. Within a few seconds you have the pin length required to achieve the perfect shear line, and measuring for the master level is just as easy. The extra pointed tip that comes with the #MIT499A is used to measure Mercedes and Kaba keys just to name a few. (See illustration 4.)

As Continental Micro worked to develop the probe assembly, Mitutoyo introduced the latest in a series of improved calipers. The newest, model #MIT501, features a larger digital readout and a data port built into the caliper body. For my money the digital port is the one feature that brings the future into the locksmith shop. The digital port allows the caliper to be linked through a connecting cable to a small efficient thermal printer (model #MIT303P), that records measurements on paper each time the data button is depressed. (See photograph 5.)



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5. The digital port linking the caliper to a thermal printer.

When I talked with Continental Micro about the printer we both had the opinion that although it was a super idea, for the locksmith working in the shop, it would be only a toy for the enthusiast, but this turned out to be wrong. Each day that the unit has been in the shop we have found unexpected uses for the printer; such as decoding a master system by measuring each key and printing a key tag.

*Continued on page 155*



## Car Opening And The Police

The following article of interest to locksmiths was sent to us by Mike Avena of Flushing, N.Y. This article titled "A U.S. Breakthrough: The Sealed Auto," addresses the issue of police opening automobiles and appeared in the New York Newsday newspaper.

by Otis Pike

A major motivation for the trade bill is the desire to protect the U.S. automobile industry from the Japanese. But we don't need all that much protection. Americans are building great cars now. The doors fit very tightly. The windows are snug. If you don't believe it, try to get the keys you have locked inside.

It was one of those rare weekends, when you can't wait to get back to work. The plane would leave at 5:35 p.m.

At 4:45, we took our bags to the lovely new Pontiac Bonneville that Avis had rented us. I had just moved it. So finely tuned are today's American automotive products that the slightest touch, the merest brush of a knuckle across the superb electronic door lock

system, and the car is more secure than the Attica prison.

Still plenty of time to get to the airport in the days of sloppier, looser U.S. automobiles—to slip the old wire coat-hanger through the window and flip the door handle or lift the lock. I got the coathanger; the car just laughed. It was an emergency.

My wife, normally moderately peaceable, suggested bashing a window with a hammer. She settled for dialing 911. A very nice, strong cop arrived bearing what police reports refer to as a "burglar's tool," a Slim Jim, looking like a thin, flexible machete. He tackled the job with vigor, mentioning that he had opened one in a minute and a half that very morning.

One hour later, after mighty strivings on both front doors, he surrendered to the car, alleging other duties.

A lady at Avis was helpful. I provided her with some numbers on the car, and she provided me with "S1 S 8," which she claimed would mean something to a locksmith. It did, and for \$4 he provided me with a key.

The key turned the lock perfectly,

but the beautifully machined and gloriously tight door moved not one millimeter. The locksmith now came to the car, bearing his own burglar's tool. He was not as strong as the cop, and had a more delicate touch. "The cop broke that door," he said as he moved to the other side. "He got this one, too," he pronounced shortly. The American car just sat there looking beautiful.

"Back doors are harder," said the locksmith. He said I was very fortunate that the car had four doors. After half an hour's work with the burglar's tool, the locksmith opened one back door, reached over and opened all the rest of them.

When last seen, the beautiful red Pontiac Bonneville, a triumph of American engineering and craftsmanship, was relaxing in an airport parking lot. Avis and I are negotiating over a car that can be entered only through a rear door when the "lock" button has not been touched. We can handle the Japanese, but watch out for cops with burglar's tools. ■

Reprinted from New York Newsday.



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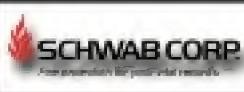
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## Three Short Goodies

"This article contains three short subjects that weren't long enough for separate articles. However, we thought we'd put them all together for you."

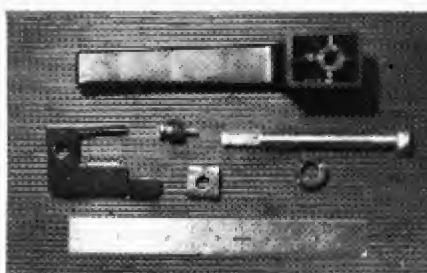
by Bob Sieveking

*Once in a while a subject comes up worthy of writing up in The National Locksmith that just isn't long enough to be a regular article. However, that doesn't mean that the idea isn't important. In this article, we will go over three short subjects, each of which is very interesting. The topics are repairing a stripped plastic safe handle, Corvette opening and a method for getting the code on the Honda Prelude.*

### Repairing a stripped plastic safe handle.

What do you do when you come across a stripped plastic safe handle? Order a new one from the manufac-

turer or repair the one you have. Ordering parts is probably the best method, but the time and trouble involved with ordering new parts is usually not cost effective. The following is a good way to salvage the existing handle and



1. Plastic handle with stripped hole.

complete the job in short order.

Photograph one shows the plastic handle with the formerly square hole rounded to a point that will no longer grip the shaft well enough to retract the safe bolts. Also shown is the solution to our problem. A spare latch plate has been used to supply the material to make a plate to reinforce the old handle.

After cutting a square piece of the strike plate to the proper size, the mounting screw hole was filed to fit the square shaft of the safe handle. Both ends of the reinforcing plate were notched to fit over the web inside the handle and the tabs were bent to extend



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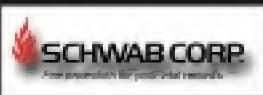
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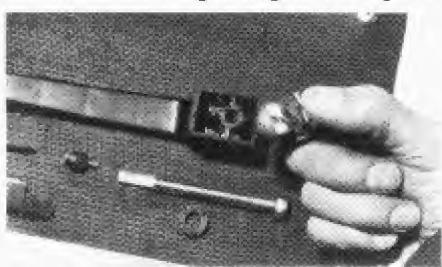
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up inside the handle.

The finished piece is shown in photograph two. Tabs on the reinforce prevent the handle from breaking further, and use the web inside the handle for turning strength. The square



2. Reinforcing plate for handle.

hole in the plate will grip the shaft and be less likely to strip out. The screw that holds the shaft and handle together, is covered by a self adhesive metal or plastic trim plate on the front of the handle.

Coat the shaft and the underside of the reinforcing plate with a fast setting epoxy and assemble. A little oil on the screw will prevent the screw from bonding to the threads inside the shaft, should it be necessary to disassemble the handle in the future. Photograph three shows the completed repair, better than new. This method should only



3. Completed handle repair.

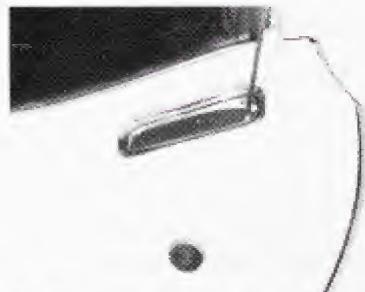
take about fifteen minutes to complete, and will give better service than the original part.

\*\*\*\*\*

#### Opening the grip handle Corvette with a twist.

I'm sure that there is more than one way to open almost any auto, but some, like the Corvette, can be a little harder than most if you don't have some inside information. If the grip handle style Corvette lock has been a problem for you, this tip should solve that problem.

The easiest method to open this auto is to enter the door through the opening in the hinged grip handle. Photograph four shows the flat opening tool entering at the rear of the rear hinge



4. Flat opening tool for a Corvette grip handle.

opening in the grip handle. (Some handles must be entered at the front of the rear hinge because of clearances, but always use the rear hinge opening.) The tool should be inserted at the angle in photograph five, the correct angle of the tool, to contact the cam of the lock cylinder. The tip of the opening tool has been twisted 90° (see photograph

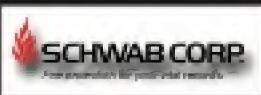


5. Correct angle to insert tool.



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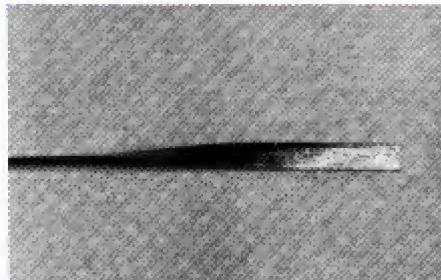
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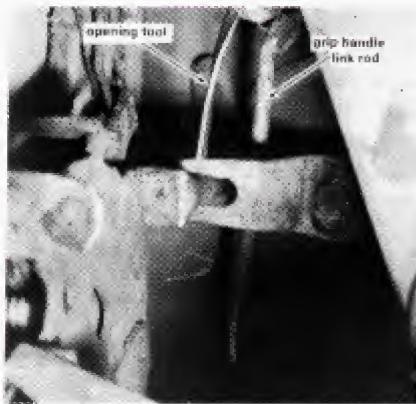
6), so that as it enters the door, it will turn to present a wide surface to the lock cam. The tip of the tool has been further modified to form a "V" notch that will prevent the tool from slipping off the cam as pressure is applied. This lock is opened with downward pressure on the cam (see photograph 7.)

This trick even works on locks that are covered with the anti-theft plastic lock case shield. The tool enters behind the shield at the same point that the grip handle link passes through the shield. A short piece of flat spring steel,

twisted and notched as shown, works equally well.



6. The twist of the tool.



7. Tool as it contacts the lock cam.

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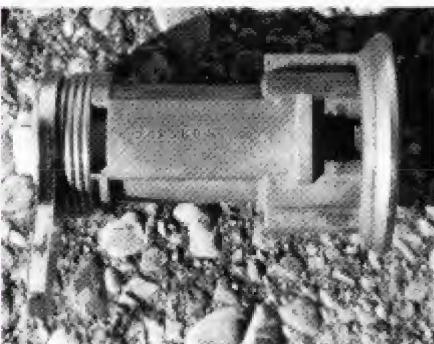
#### Getting the code on a Honda Prelude.

The other day I was at the Honda dealership to make keys for an '84 Honda Prelude sedan. The car was opened in short order and I proceeded to remove the glove box lock to find the code.

Standard procedure for this auto has been to loosen the two Phillips screws inside the glove box and slide the lock out the rear. The code is found on the top of the lock case. Needing a stubby Phillips screwdriver, I asked my apprentice to get one out of the truck. Looking me in the eye, he asked, "why don't you get the code from the trunk cylinder, it's a lot easier?" Before I could answer, he pulled the remote trunk release and up popped the trunk lid. Honda trunk locks of this type are held in place with a spring clip that can be removed with your fingers. He had the lock out and handed it to me, in less time than it would have taken to get the screwdriver from the truck.

"Learned something new, huh boss?"

It's hell when you're trying to teach somebody and they have it already learned. Photograph eight shows the



8. Honda Prelude trunk lock with code.

trunk lock from the 1984 Honda Prelude. I learned that it's quicker to remove the trunk lock than the glove box lock to make a first key for the Honda. ■

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## Masterkeying Corbin Locks

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"My first look at the locks came when I was at the front door. They were Corbin lock cylinders all right, but they were removable cores."

---



by Don O'Shall

It was a damp, rainy day when I got the telephone call. I was sitting at my desk listening to the rain claw at the door like an angry kitten scratching to get in, and thanking the powers that be for not having to go out in it. I should have known better.

The call came from a local real estate

developer who recently acquired what had been an elementary school building, and was planning to turn it into an apartment complex.

On purchasing the building, he had been given a master key but no individual keys for the locks. Since the locks were heavy-duty Corbin knoblocks and were in excellent operating condition, he planned on re-using them, rather than replacing them.

I advised him that it would be cheaper for him, and better for his tenants, if a new masterkey system were set up rather than trying to decode the existing system and cut keys for it.

After all, who knows how well the previous user had maintained key control? There could conceivably be master keys for it floating throughout the Valley, in the hands of outside vendors who might have serviced portions of the building during its operation.

I quoted him a price to set up and implement the new master key system, as well as to set up a key control plan for him to suit his future needs concerning it. He agreed to the price without argument, as he had on previous jobs I had done for him.

When I first started to solicit masterkeying jobs many years ago, it seemed



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like I would never get over the price obstacle, since I have never been among the lowest price locksmiths around. But over the years, as customers gained confidence in the quality of my system, it has gotten easier, almost to the point of automatic acceptance.

I agreed to meet him at one o'clock that afternoon and begin work on the job, because he was anxious to move as quickly as possible. We then said our good-bye's and the conversation ended.

It shouldn't have. There were a few things that should have been covered in the conversation and were not. But I assumed that he knew from previous jobs a few things that I would require, among them the master key.

The downspout over the door where I was to meet him was missing, and the rain poured from it to the spot where I stood. The grounds had all been dug up to accomodate the new sewage, etc., that was needed for an apartment building, so the walkway was my only waiting place.

Since there were several parking areas, all equally far from the door where we were to meet I couldn't wait

in the car instead. And to make things worse, my usually prompt customer had not shown up yet, and it had already been ten minutes past the appointed hour. All of this should have warned me how the day was likely to turn out, but I wasn't firing on all eight cylinders, I guess.

My first clue came when the customer's foreman came walking up instead of him. I could feel the first twinges of apprehension tugging at my brain, but I tried to ignore it and tell myself I was being foolish.

"How come you're waiting in the rain?" he asked. "The boss gave you the go-ahead for the job. You didn't have to wait."

He then informed me that my customer had gotten tied up in another investment, and was unable to meet me himself, which explained the foreman's presence.

"Let's get started, then," I said. "Where is the master key?"

"The boss said you were gonna' set up a new one, so I didn't bother to bring the old one..."

An old familiar tune that I had hoped never to hear again. At any rate, out came the pick set, and I proceeded

to let us in, the expletives deleted but running through my mind.

My first look at the locks came when I inserted the pick into the rim cylinder on the outside door. They were Corbin lock cylinders, all right, but they were removable core cylinders.

Of course, between the quality of the cylinders and the rain in my face, it seemed to take forever to get the door open, but persistance finally paid off and the plug turned, allowing entry to the building.

I then walked down the hallway until I found an unlocked door, unscrewed the inside rosette, and depressed the spring-loaded knob retainer for the inner knob. (See photograph 1.)



1. The Corbin knob retainer.



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With the knob released, I could unscrew the inner rosette the rest of the way and pull the lockset off the door from the outside. Because I could not see the assembly screw heads from the inside, I knew that this one was a late model lockset, although others in the system may or may not be. I pulled the outer rosette toward the body of the lockset and unscrewed the collar until I felt it begin to tighten. (See photograph 2.)



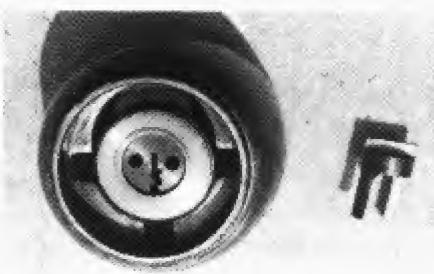
2. Loosening the outer collar.

Then I released the rosette and let it snap into place on the collar. This freed the area where the spring-loaded knob retainer was, and allowed me to depress it, releasing the knob itself. On the late models, like this one, the outer knob retainer is almost identical to the inner knob retainer.

With the outer knob in hand, I dumped out the "plug driver" (which is what Corbin calls its cylinder actuator). I make a habit of always removing this at this stage, to avoid spilling it onto the floor later.

I then used my Truarc ring pliers to release the large snap ring that holds the outer knob assembly together. I have found that this generally works better if I only start the removal with the pliers, and use a flat-bladed screwdriver to complete the task.

This allowed for the removal of the knob backplate and limited access to the cylinder itself. Photograph three shows the parts in the order in which they are removed.



3. The Corbin knob and plug driver.

One of the problems involved in the service I was now expected to perform

is that with the Corbin removable core cylinders, the control lug does not extend fully around the plug as does the control sleeve on the Best or Falcon cores. This means that there is no way, from the outside of the lock, to apply pressure for the core removal. Also, on factory created systems, if the core can be picked, it has a tendency to be picked to the opening position, rather than to the core removal position.

The purpose in disassembling this lockset was to allow a limited amount of access to the core itself. Once the knob backplate has been removed, the core still cannot be removed, since it must come out the front of the knob, but the receiver plate which holds the core in must be removed from the back of the knob.

The control lug on the core thus holds the two parts together, preventing further disassembly. Also, the receiver plate prevents the plug retainer from being removed or the cylinder shimmed.

However, there is a large amount of clear space on the side of the core where the control lug is located. With patience and a sturdy piece of fairly thin rod bent to allow pressure to be applied to the lug (in much the same



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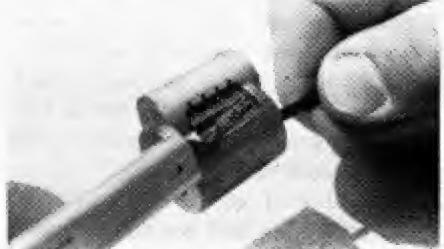
manner as the GM sidebar is pressured to read the tumblers), the control shearline can be picked.

Basically, the pressure is applied to the control lug from the back of the knob, while raking the tumblers

through the front of the keyway. Since the pressure on the control lug is the only "turning" pressure on the plug, *only* the control shearline can be picked—not the operating shearline. Photographs four and five show what



4. Applying pressure to the control lug.



5. Picking the control shearline.

the receiver plate looks like with a core in it, and how the pressure is applied. Of course, access is slightly more limited when it is in the knob itself.

I should state here that this is usually much easier said than done. While it does get a little easier with practice, it never gets really easy, but the alternatives that I am aware of are worse. With practice, patience and effort, this method will usually allow you to remove the core in a matter of only a few minutes. Of course, on this job, it had to take at least fifteen minutes of effort, before it gave even an indication that it had a chance of succeeding.

Once the core picks the fifteen or twenty degrees of angle to the core removal position, it can be pulled from the knob and serviced as required.

Corbin uses a small C-ring (similar to Kwikset's) as a plug retainer for the core itself. Since I needed to decode the cylinder core to create a core control key (to allow the removal for re-keying of the rest of the cores in the system), I removed the retainer and shimmed the operating shearline from the back of the plug, as you would for most cylinders. This allowed me to use a plug follower and remove the plug itself, being careful not to disturb or drop the pins.

I then gently pried up the brass spring retainer slide on the top of the core, and released the springs. I slowly emptied the top chambers one at a time, being careful so that only one pin was released at a time from each chamber. The first chamber had one master pin and one driver (top pin) in it, as did the last. The others had one master pin, one control pin, and the driver in them.

I lined the pins for each chamber up, using a piece of corrugated cardboard as a makeshift pin tray, and added the pins from the plug to them. I then measured each of them with my calipers, comparing them to the pinning charts in my *Interchangeable Core Servicing Book*.

This allowed me to decode the control key, and use it to pull the rest of the cores in the system. I then returned to the shop, where I repeated the process for another core from the system, and, by comparing the pins in them, determined what I believed to be the master key. I used it to disassemble the rest of the cores in the system. (Illustration six on page 156 shows the calculations I used.)

Then I laid out the system, cut the keys, and prepared to pin the cores. Used a pinning calculator program (see



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# Business Briefs

## S & G Forms Government Division

Sargent & Greenleaf, Inc. has announced the formation of the Government Business Development Division. The division was created to organize the activities of S & G in working with the various government agencies in designing, developing and



marketing of high security products for government use.

Gary Murphree, former Director of New Product Development has been promoted to vice president of the Government Business Development Division. Gary is a nine year veteran of S & G and has over 17 years experience in the lock industry including various engineering positions at Yale, Ilco/Unicam and All-Lock.

Other members of the new division include development engineers Walt Evans and Mike Remenick.



## Wilkerson To Be New ASSA President

ASSA, Incorporated has announced the appointment of Wayne Wilkerson as president, responsible for all U.S. and Canadian operations.

Wilkerson has most recently served as vice president of Medeco Security Locks, Inc. of Salem, Virginia. In his

eleven year tenure at Medeco, he has held various management positions including total responsibility for the company's worldwide sales.

Wayne has assumed the role and responsibilities of president at ASSA, Inc. and is presently relocating with his wife, Beth, and their two children to the Chicago area where the firm is headquartered.

*Continued on page 127*



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professional.

## Briggs & Stratton Names Wier Vice President

James Wier, former General Manager of Briggs & Stratton's Industrial Electrical Products Division, has been appointed Vice President and General Manager of Briggs & Stratton Technologies.

Wier joined the corporation in 1975. He received a Bachelor's Degree in Business Administration from the University of Wisconsin at Madison. He has also done post-graduate work at Northern Illinois University and Western Wisconsin University.



He replaces vice president and general manager, William Rollo, who headed the division since 1978. Rollo will be on special assignment until his retirement in May.

## Schlage Names Ware Residential/Retail Manager

Ernie Ware has been promoted to Residential/Retail Product Manager of Schlage Lock Company.

Ernie will report directly to Patrick Murphy, Residential/Retail Marketing Manager. He will be responsible for many of the basic functional areas in marketing as they relate to the residential/retail channels of distribution and the markets they serve. In addition, Ernie will work closely with business development and implement new product introductions.

Ernie Ware brings to his new position several years of manufacturing engineering experience. Ernie was a manufacturing and automation engineer. He also was the project engineer for Dole Pineapple/Castle & Cook Foods, Honolulu, Hawaii.

## Medeco Security Names VP of Operations

Medeco Security Locks, Inc., announces the appointment of Joe Reardon to Vice President of Operations.

In this position, Reardon will supervise all activities in plant operations, industrial engineering, purchasing and project engineering areas.

Reardon comes to Medeco with extensive hands-on experience in manufacturing and over 25 years of varied background in heavy metals,



sheet metal, welding, plating and specialty machining.

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## 25 Ways To Improve Business

"There is no magic formula to making your business stand out from the crowd. But here are twenty-five steps you can take to improve business."

by Ernest Fair

Are you looking for a magic formula that can make your locksmith business stand out from the crowd? Unfortunately, there is no magic to it at all, but here are 25 time-tested and proven steps which can be taken to bring that desirable end nearer to fulfillment.

**Be the leader** and keep it that way. Once the company is number one, it is often thought the business will provide easy sledding in the future. Not so. Holding onto that leadership takes as much hard work and as many new ideas as getting there.

**Maintain the reputation** of having the newest security products and services always available for customers. Once this has been established, the business will have first chance at most of the customers in any area.

**Convince every last employee** that even the small purchase customer is an important element of the operation. Too often personnel get the idea that only the "big spender" is important to the business. A small customer could turn into an important client virtually overnight.

**Advertise consistently**, not in spurts and splashes. The big promotions are important but it is consistent day-in and day-out effort which builds any business to that top spot.

**Keep on improving** the performance capability of the staff. Use schools and training sessions as they are made available. Holding leadership always requires top capability on every job by each individual from top to bottom on the payroll.

**Keep improving and modernizing** the physical appearance of that business. Doing so is less expensive than a major overhaul every ten years or so. Customers are always impressed by the business where exterior and interior appearance looks as good or better than others.

**Take part** in the activities of customers. Know the things they like to do

by having done them or having gotten acquainted with them. This supplies that little something special which makes the business more inviting to them than others.

**Design every step** to make it simpler and easier for the customer to locate, select and use what is being offered.

**Take an active part** in association activities. See that what is being done gets the kind of publicity which reaches customers. No locksmith company can stand out from the crowd unless its management demonstrates leadership and interest in its field.

**Stand behind** everything promised to customers both "across the counter" and in promotional programs.

**Work constantly** toward the goals of "no mistakes or errors" in dealing with customers. Too many errors soon build the impression of mistrust in the customer's mind. See to it that every employee understands how important this step is in every step of customer relationships.

**Go to customers** with promotional efforts. Never wait for them to come to the business. Well placed advertising does that. So do contacts in the field. Whenever an opportunity arises to take such steps, use them to your advantage.

**Build up information** and facts on any problem customers may have. Let them know you want to help. Welcome these contacts as though they mean more money in the bank—because they will.

**Follow up** on all customer business. Convince each by this type of interest that the business is involved in something more than obtaining their money.

**Examine services** offered customers regularly and be sure an adequate job is being done with them. Corners can be cut in many and a few cents saved, but doing so can mean lost business in the long run.

**Keep upgrading** the staff each time a replacement is necessary. That is the

way to build and maintain a top business. It always pays to look a little harder, interview just a few more prospects and take every possible step toward finding the best available person.

**Be a contributor** to any activity that can provide prestige for the business. Take the time to sample a few and pick the best for that purpose.

**Cultivate avenues** to good publicity in the area. The more publicity which can be obtained, the better picture of the business will emerge. Know newspapermen, school teachers, real estate agents, and everyone else who can contribute to making the lock shop recognized as tops in the area.

**Talk to customers** whenever an opportunity is available. The more you know about their reactions to the business the better plans can be developed for the future.

**Be accessible** to customers. An employee can handle most of them but never let that defer an opportunity to become better personally acquainted with any customer.

**Work at being** a community leader personally and see to it that the shop is always ready to take the lead in pushing any meritorious program.

**Make the business** operation as complete in the security field as possible.

**Continue to inform** customers that your business occupies a position of leadership in the area. The light that remains hidden can never be seen.

**Maintain a constant** check on what competitors are doing for their customers. If it is profitable to offer the same or better, by all means do so as a regular business policy.

**Finally, make it** a continuing policy to instill and maintain pride in the business on the part of every person there in. Such a relationship between a business and the people on its staff assures that it will always have the best possible chance of standing out from the crowd! ■

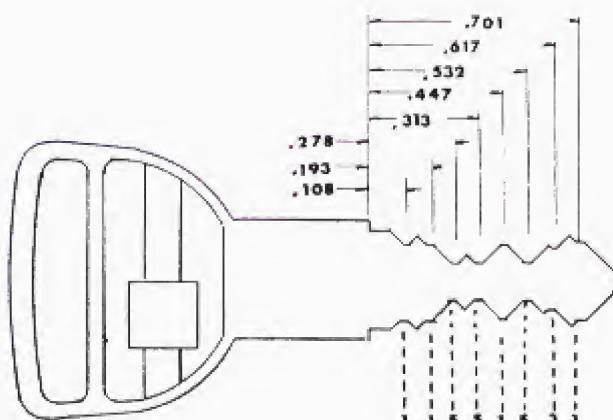


# Honda Civic Codes

1987+

5001-8442

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## DEPTHS

|           |           |
|-----------|-----------|
| 0 -       | 5 - 0.206 |
| 1 - 0.307 | 6 - 0.181 |
| 2 - 0.282 | 7 -       |
| 3 - 0.257 | 8 -       |
| 4 - 0.232 | 9 -       |

## KEYWAYS

|           |        |
|-----------|--------|
| HPC/Silca | HON43R |
| ILCO      | HD88   |
| TAYLOR    | X172   |

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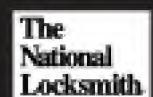


## 5001-8442 HONDA

**Keyblanks:**

HPC/Silca HON43R  
ILCO HD88  
TAYLOR X172

| 5001        | 5051        | 5101        | 5151        | 5201        |
|-------------|-------------|-------------|-------------|-------------|
| 01 63221111 | 51 66461111 | 01 64633111 | 51 44415111 | 01 12455111 |
| 02 25221111 | 52 32661111 | 02 15633111 | 52 64415111 | 02 43555111 |
| 03 45221111 | 53 52661111 | 03 35633111 | 53 26415111 | 03 63555111 |
| 04 65221111 | 54 24661111 | 04 56633111 | 54 46415111 | 04 14555111 |
| 05 52421111 | 55 54661111 | 05 41243111 | 55 66415111 | 05 41655111 |
| 06 22521111 | 56 41222111 | 06 61243111 | 56 22615111 | 06 51265111 |
| 07 24521111 | 57 61222111 | 07 65343111 | 57 42615111 | 07 22126111 |
| 08 44521111 | 58 12252111 | 08 63153111 | 58 62615111 | 08 21336111 |
| 09 64521111 | 59 66652111 | 09 24153111 | 59 24615111 | 09 13336111 |
| 10 26521111 | 60 12662111 | 10 44153111 | 60 44615111 | 10 43336111 |
| 11 46521111 | 61 16662111 | 11 65153111 | 61 64615111 | 11 12256111 |
| 12 66521111 | 62 36662111 | 12 26153111 | 62 26615111 | 12 35556111 |
| 13 42721111 | 63 63213111 | 13 46153111 | 63 46615111 | 13 65556111 |
| 14 62621111 | 64 25213111 | 14 63353111 | 64 66615111 | 14 12656111 |
| 15 32241111 | 65 45213111 | 15 16353111 | 65 42135111 | 15 12441211 |
| 16 52241111 | 66 65213111 | 16 36353111 | 66 63135111 | 16 42116211 |
| 17 24241111 | 67 22413111 | 17 41453111 | 67 24135111 | 17 61126211 |
| 18 44241111 | 68 42413111 | 18 61453111 | 68 44135111 | 18 16556211 |
| 19 64241111 | 69 62413111 | 19 63553111 | 69 65135111 | 19 52211311 |
| 20 26241111 | 70 24413111 | 20 41653111 | 70 26135111 | 20 25211311 |
| 21 46241111 | 71 44413111 | 21 32163111 | 71 46135111 | 21 45211311 |
| 22 66241111 | 72 64413111 | 22 51263111 | 72 41335111 | 22 65211311 |
| 23 32441111 | 73 26413111 | 23 43363111 | 73 63335111 | 23 22411311 |
| 24 52441111 | 74 46413111 | 24 14363111 | 74 15335111 | 24 42411311 |
| 25 25441111 | 75 66413111 | 25 55363111 | 75 35335111 | 25 62411311 |
| 26 45441111 | 76 22613111 | 26 21463111 | 76 55335111 | 26 24411311 |
| 27 65441111 | 77 42613111 | 27 33563111 | 77 61435111 | 27 44411311 |
| 28 22641111 | 78 62613111 | 28 14563111 | 78 21535111 | 28 64411311 |
| 29 42641111 | 79 24613111 | 29 22214111 | 79 41535111 | 29 26411311 |
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| 31 24641111 | 81 64613111 | 31 61224111 | 81 33535111 | 31 66411311 |
| 32 44641111 | 82 26613111 | 32 22134111 | 82 53535111 | 32 22611311 |
| 33 64641111 | 83 46613111 | 33 21334111 | 83 15535111 | 33 42611311 |
| 34 26641111 | 84 66613111 | 34 13334111 | 84 35535111 | 34 62611311 |
| 35 46641111 | 85 63133111 | 35 43334111 | 85 65535111 | 35 24611311 |
| 36 32261111 | 86 24133111 | 36 12254111 | 86 61245111 | 36 44611311 |
| 37 52261111 | 87 44133111 | 37 35554111 | 87 32155111 | 37 64611311 |
| 38 24261111 | 88 65133111 | 38 65554111 | 88 53155111 | 38 26611311 |
| 39 44261111 | 89 26133111 | 39 16554111 | 89 24155111 | 39 46611311 |
| 40 64261111 | 90 46133111 | 40 21654111 | 90 45155111 | 40 66611311 |
| 41 26261111 | 91 16333111 | 41 63215111 | 91 65155111 | 41 52131311 |
| 42 46261111 | 92 46333111 | 42 24214111 | 92 26155111 | 42 24131311 |
| 43 66261111 | 93 41433111 | 43 44215111 | 93 31355111 | 43 44131311 |
| 44 22461111 | 94 61433111 | 44 65215111 | 94 43355111 | 44 64131311 |
| 45 62461111 | 95 63433111 | 45 26215111 | 95 63355111 | 45 26131311 |
| 46 62461111 | 96 21633111 | 46 46215111 | 96 14355111 | 46 46131311 |
| 47 24461111 | 97 41633111 | 47 22415111 | 97 35355111 | 47 66131311 |
| 48 54461111 | 98 62633111 | 48 42415111 | 98 65355111 | 48 41331311 |
| 49 26461111 | 99 13633111 | 49 62415111 | 99 16355111 | 49 61331311 |
| 50 46461111 | 00 43633111 | 50 24415111 | 00 51455111 | 50 16331311 |



## 5001-8442 HONDA

### Keyblanks:

HPC/Silca HON43R  
 ILCO HD88  
 TAYLOR X172

| 5251        | 5301        | 5351        | 5401        | 5451        |
|-------------|-------------|-------------|-------------|-------------|
| 51 46331311 | 01 61313311 | 51 21163311 | 01 41535311 | 51 16555411 |
| 52 66331311 | 02 16313311 | 52 11363311 | 02 61535311 | 52 42211511 |
| 53 63431311 | 03 46313311 | 53 14363311 | 03 11635311 | 53 62211511 |
| 54 41531311 | 04 66313311 | 54 44363311 | 04 13635311 | 54 24211511 |
| 55 61531311 | 05 21413311 | 55 64363311 | 05 43635311 | 55 44211511 |
| 56 21631311 | 06 13413311 | 56 16363311 | 06 63635311 | 56 64211511 |
| 57 13631311 | 07 43413311 | 57 46363311 | 07 15635311 | 57 26211511 |
| 58 43631311 | 08 63413311 | 58 66363311 | 08 35635311 | 58 66211511 |
| 59 63631311 | 09 41513311 | 59 11563311 | 09 61145311 | 59 22411511 |
| 60 15631311 | 10 61513311 | 60 13563311 | 10 41155311 | 60 42411511 |
| 61 35631311 | 11 15513311 | 61 43563311 | 11 63155311 | 61 62411511 |
| 62 55631311 | 12 35513311 | 62 15563311 | 12 14155311 | 62 24411511 |
| 63 22141311 | 13 55513311 | 63 35563311 | 13 34155311 | 63 44411511 |
| 64 43341311 | 14 12613311 | 64 55563311 | 14 65155311 | 64 64411511 |
| 65 14341311 | 15 43613311 | 65 66634311 | 15 26155311 | 65 26411511 |
| 66 42151311 | 16 63613311 | 66 63115311 | 16 46155311 | 66 46411511 |
| 67 62151311 | 17 41133311 | 67 24115311 | 17 41355311 | 67 66411511 |
| 68 24151311 | 18 61133311 | 68 44115311 | 18 61355311 | 68 22611511 |
| 69 44151311 | 19 14133311 | 69 65115311 | 19 63355311 | 69 42611511 |
| 70 64151311 | 20 44133311 | 70 26115311 | 20 16355311 | 70 62611511 |
| 71 26151311 | 21 64133311 | 71 46115311 | 21 36355311 | 71 24611511 |
| 72 46151311 | 22 26133311 | 72 41314311 | 22 56355311 | 72 44611411 |
| 73 66151311 | 23 46133311 | 73 61314311 | 23 41555311 | 73 64611511 |
| 74 31351311 | 24 66133311 | 74 63315311 | 24 61555311 | 74 26611511 |
| 75 51351311 | 25 41433311 | 75 16315311 | 25 63555311 | 75 46611511 |
| 76 63351311 | 26 61433311 | 76 36315311 | 26 22116311 | 76 66611511 |
| 77 35351311 | 27 11633311 | 77 56315311 | 27 21136311 | 77 22131511 |
| 78 55351311 | 28 41633311 | 78 21415311 | 28 11336311 | 78 42131511 |
| 79 16351311 | 29 62633311 | 79 13415311 | 29 14336311 | 79 62131511 |
| 80 31551311 | 30 14633311 | 80 33415311 | 30 44336311 | 80 24131511 |
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| 84 14551311 | 34 46633311 | 84 15515311 | 34 13356311 | 84 46131511 |
| 85 35551311 | 35 16343311 | 85 35515311 | 35 43356311 | 85 66131511 |
| 86 65551311 | 36 46343311 | 86 65515311 | 36 11556311 | 86 41331511 |
| 87 16551311 | 37 66343311 | 87 12615311 | 37 13556311 | 87 61331511 |
| 88 12651311 | 38 63443311 | 88 33615311 | 38 33556311 | 88 13331511 |
| 89 12261311 | 39 41153311 | 89 41135311 | 39 35556311 | 89 43331511 |
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| 91 14361311 | 41 63153311 | 91 14135311 | 41 22211411 | 91 15331511 |
| 92 12461311 | 42 14153311 | 92 34135311 | 42 22211411 | 92 35331511 |
| 93 52113311 | 43 34153311 | 93 55135311 | 43 21331411 | 93 55331511 |
| 94 24113311 | 44 55153311 | 94 26135311 | 44 22113411 | 94 21531511 |
| 95 44113311 | 45 26153311 | 95 41335311 | 45 21133411 | 95 41531511 |
| 96 64113311 | 46 41353311 | 96 61335311 | 46 11333411 | 96 61531511 |
| 97 26113311 | 47 61353311 | 97 16335311 | 47 14333411 | 97 13531511 |
| 98 46113311 | 48 41553311 | 98 46335311 | 48 44333411 | 98 33531511 |
| 99 66113311 | 49 61553311 | 99 66335311 | 49 42115411 | 99 53531511 |
| 00 41313311 | 50 63653311 | 00 63435311 | 50 61125411 | 00 15531511 |



## 5001-8442 HONDA

### Keyblanks:

HPC/Silca HON43R  
 ILCO HD88  
 TAYLOR X172

| 5501        | 5551        | 5601        | 5651        | 5701        |
|-------------|-------------|-------------|-------------|-------------|
| 01 35531511 | 51 33511511 | 01 33553511 | 51 13535511 | 01 26411131 |
| 02 65531511 | 52 53513511 | 02 63553511 | 52 33535511 | 02 46411131 |
| 03 22151511 | 53 15513511 | 03 16553511 | 53 63535511 | 03 66411131 |
| 04 42141511 | 54 35513511 | 04 36553511 | 54 16535511 | 04 22611131 |
| 05 62151511 | 55 65513511 | 05 66553511 | 55 36535511 | 05 42611131 |
| 06 24151511 | 56 41133511 | 06 22115511 | 56 66535511 | 06 52611131 |
| 07 44151511 | 57 61133511 | 07 63115511 | 57 61145511 | 07 24611131 |
| 08 64151511 | 58 13133511 | 08 24115511 | 58 21155511 | 08 44611131 |
| 09 26151511 | 59 43133511 | 09 44115511 | 59 41155511 | 09 64611131 |
| 10 46151511 | 60 63133511 | 10 65115511 | 60 13155511 | 10 26611131 |
| 11 66151511 | 61 15133511 | 11 26115511 | 61 33155511 | 11 46611131 |
| 12 21351511 | 62 35133511 | 12 46115511 | 62 63155511 | 12 66611131 |
| 13 41351511 | 63 55133511 | 13 21315511 | 63 26155511 | 13 52131131 |
| 14 61351511 | 64 41333511 | 14 41315511 | 64 46155511 | 14 24131131 |
| 15 13351511 | 65 61333511 | 15 61315511 | 65 66155511 | 15 44131131 |
| 16 33351511 | 66 64333511 | 16 13315511 | 66 11355511 | 16 64131131 |
| 17 53351511 | 67 16333511 | 17 33315511 | 67 31355511 | 17 26131131 |
| 18 15351511 | 68 46333511 | 18 53315511 | 68 61355511 | 18 46131131 |
| 19 35351511 | 69 66333511 | 19 15315511 | 69 13355511 | 19 66131131 |
| 20 65351311 | 70 11533511 | 20 35315511 | 70 43355511 | 20 41331131 |
| 21 21551511 | 71 31533511 | 21 65315511 | 71 63355511 | 21 61331131 |
| 22 41551511 | 72 51533511 | 22 21515511 | 72 16355511 | 22 16331131 |
| 23 61551511 | 73 13533511 | 23 41515511 | 73 36355511 | 23 46331131 |
| 24 13551511 | 74 43533511 | 24 61515511 | 74 66355511 | 24 66331131 |
| 25 33551511 | 75 63533511 | 25 13515511 | 75 11655511 | 25 63431131 |
| 26 63551511 | 76 15533511 | 26 33515511 | 76 31655511 | 26 41531131 |
| 27 16551511 | 77 35533511 | 27 63515511 | 77 62655511 | 27 61531131 |
| 28 36551511 | 78 65533511 | 28 16515511 | 78 13655511 | 28 21631131 |
| 29 66551511 | 79 21153511 | 29 36515511 | 79 33655511 | 29 13631131 |
| 30 42113511 | 80 41153511 | 30 66515511 | 80 64655511 | 30 43631131 |
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| 36 46113511 | 86 35153511 | 36 15135511 | 86 14333611 | 36 21341131 |
| 37 66113511 | 87 65153511 | 37 35135511 | 87 44333611 | 37 13341131 |
| 38 21313511 | 88 11353511 | 38 65135511 | 88 42115611 | 38 43341131 |
| 39 41313511 | 89 31353511 | 39 11335511 | 89 15655611 | 39 42151131 |
| 40 61313511 | 90 51353511 | 40 31335511 | 90 61115621 | 40 62151131 |
| 41 13313511 | 91 13353511 | 41 51335511 | 91 52211131 | 41 24151131 |
| 42 43313511 | 92 43353511 | 42 13335511 | 92 25211131 | 42 44151131 |
| 43 63313511 | 93 63353511 | 43 43335511 | 93 45211131 | 43 64151131 |
| 44 15313511 | 94 15353511 | 44 63335511 | 94 65211131 | 44 26151131 |
| 45 35313511 | 95 35353511 | 45 15335511 | 95 22411131 | 45 46151131 |
| 46 55313511 | 96 65353511 | 46 35335511 | 96 42411131 | 46 66151131 |
| 47 21513511 | 97 11553511 | 47 65335511 | 97 62411131 | 47 41351131 |
| 48 41513511 | 98 31553511 | 48 11535511 | 98 24411131 | 48 61351131 |
| 49 61513511 | 99 61553511 | 49 31535511 | 99 44411131 | 49 63351131 |
| 50 13513511 | 00 13553511 | 50 61535511 | 00 64411131 | 50 15351131 |



## 5001-8442 HONDA

### Keyblanks:

HPC/Silca HON43R  
ILCO HD88  
TAYLOR X172

| 5751        | 5801        | 5851        | 5901        | 5951        |
|-------------|-------------|-------------|-------------|-------------|
| 51 35351131 | 01 62633131 | 51 21315131 | 01 11355131 | 51 64131331 |
| 52 55351131 | 02 14633131 | 52 41315131 | 02 31355131 | 52 26131331 |
| 53 21551131 | 03 44633131 | 53 61315131 | 03 51355131 | 53 46131331 |
| 54 41551131 | 04 64633131 | 54 13315131 | 04 13355131 | 54 66131331 |
| 55 61551131 | 05 16633131 | 55 43315131 | 05 43355131 | 55 41431331 |
| 56 13551131 | 06 46633131 | 56 63315131 | 06 63355131 | 56 61431331 |
| 57 33551131 | 07 66633131 | 57 15315131 | 07 15355131 | 57 11631331 |
| 58 53551131 | 08 16343131 | 58 35315131 | 08 35355131 | 58 41631331 |
| 59 15551131 | 09 46343131 | 59 55315131 | 09 65355131 | 59 62631331 |
| 60 35551131 | 10 66343131 | 60 21515131 | 10 11555131 | 60 24632332 |
| 61 65551131 | 11 63443131 | 61 41515131 | 11 31555131 | 61 44631331 |
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## 5001-8442 HONDA

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 ILCO HD88  
 TAYLOR X172

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## 5001-8442 HONDA

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 ILCO HD88  
 TAYLOR X172

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### Keyblanks:

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 ILCO HD88  
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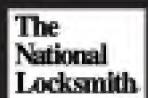


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 ILCO HD88  
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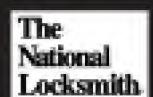


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| 13 61153551 | 63 66615551 | 13 33665551 | 63 22141133 | 13 12613133 |
| 14 13153551 | 64 11135551 | 14 64665551 | 64 21341133 | 14 43613133 |
| 15 33153551 | 65 31135551 | 15 16665551 | 65 13341133 | 15 63613133 |
| 16 63153551 | 66 61135551 | 16 36665551 | 66 43341133 | 16 41133133 |
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| 18 46153551 | 68 33135551 | 18 21113361 | 68 62151133 | 18 14133133 |
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| 20 11353551 | 70 26135551 | 20 11433361 | 70 44151133 | 20 64133133 |
| 21 31353551 | 71 46135551 | 21 14433361 | 71 64151133 | 21 26133133 |
| 22 61353551 | 72 66135551 | 22 65553361 | 72 26151133 | 22 46133133 |
| 23 13353551 | 73 11335551 | 23 52211133 | 73 46151133 | 23 66133133 |
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| 25 63353551 | 75 61335551 | 25 45211133 | 75 41351133 | 25 61433133 |
| 26 16353551 | 76 13335551 | 26 65211133 | 76 61351133 | 26 11633133 |
| 27 36353551 | 77 43335551 | 27 22411133 | 77 63351133 | 27 41633133 |
| 28 66353551 | 78 63335551 | 28 42411133 | 78 15351133 | 28 62633133 |
| 29 11653551 | 79 16335551 | 29 62411133 | 79 35351133 | 29 14633133 |
| 30 31653551 | 80 36335551 | 30 24411133 | 80 55351133 | 30 44633133 |
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| 39 41115551 | 89 36635551 | 39 64611133 | 89 21261133 | 39 41153133 |
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| 46 11315551 | 96 64165551 | 46 26131133 | 96 26113133 | 46 41353133 |
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| 48 61315551 | 98 36265551 | 48 66131133 | 98 66113133 | 48 41553133 |
| 49 13315551 | 99 66265551 | 49 41331133 | 99 41313133 | 49 61553133 |
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## 5001-8442 HONDA

### Keyblanks:

HPC/Silca HON43R  
 ILCO HD88  
 TAYLOR X172

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| 53 14363133 | 03 55135133 | 53 11413333 | 03 46111533 | 53 11633533 |
| 54 44363133 | 04 41335133 | 54 41413333 | 04 66111533 | 54 16633533 |
| 55 64363133 | 05 61335133 | 55 61413333 | 05 41311533 | 55 46633533 |
| 56 16363133 | 06 64335133 | 56 14413333 | 06 61311533 | 56 66633533 |
| 57 46363133 | 07 16335133 | 57 16413333 | 07 63311533 | 57 41153533 |
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| 60 13563133 | 10 11535133 | 60 12613333 | 10 56311533 | 60 14153533 |
| 61 43563133 | 11 31535133 | 61 42613333 | 11 21411533 | 61 34153533 |
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| 63 35563133 | 13 13535133 | 63 14613333 | 13 33411533 | 63 26153533 |
| 64 55563133 | 14 43535133 | 64 54613333 | 14 41511533 | 64 46153533 |
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| 92 53515133 | 42 63555133 | 92 51515333 | 42 12613533 | 92 13415533 |
| 93 15515133 | 43 16555133 | 93 15515333 | 43 43613533 | 93 33415533 |
| 94 35515133 | 44 36555133 | 94 12615333 | 44 63613533 | 94 31515533 |
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| 96 41135133 | 46 21126133 | 96 63615333 | 46 61133533 | 96 63515533 |
| 97 61135133 | 47 11336133 | 97 63465333 | 47 14133533 | 97 16515533 |
| 98 13135133 | 48 14336133 | 98 52111533 | 48 44133533 | 98 36515533 |
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## 5001-8442 HONDA

### Keyblanks:

HPC/Silca HON43R  
ILCO HD88  
TAYLOR X172

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| 49 63353153 | 99 36535153 | 49 41333353 | 99 63365553 | 49 13341135 |
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## 5001-8442 HONDA

### Keyblanks:

HPC/Silca    HON43R  
 ILCO           HD88  
 TAYLOR        X172

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| 53 24151135 | 03 14133135 | 53 14334135 | 03 65535135 | 53 61555335 |
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| 55 64151135 | 05 64133135 | 55 42115135 | 05 41155135 | 55 63465335 |
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| 85 61313135 | 35 62653135 | 85 63135135 | 35 41315335 | 85 63113535 |
| 86 16313135 | 36 21163135 | 86 15135155 | 36 61315335 | 86 14113535 |
| 87 46313135 | 37 11363135 | 87 35135135 | 37 16315335 | 87 34113535 |
| 88 66313135 | 38 14363135 | 88 55135135 | 38 46315335 | 88 55113535 |
| 89 21413135 | 39 44363135 | 89 41335135 | 39 66315335 | 89 26113535 |
| 90 13413135 | 40 84363135 | 90 61335135 | 40 11415335 | 90 41313535 |
| 91 63413135 | 41 16363135 | 91 64335135 | 41 13415335 | 91 61313535 |
| 92 41513135 | 42 46363135 | 92 16335135 | 42 43415335 | 92 16313535 |
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| 94 15513135 | 44 11563135 | 94 66335135 | 44 31515335 | 94 66313535 |
| 95 35513135 | 45 13563135 | 95 11535135 | 45 51515335 | 95 11413535 |
| 96 55513135 | 46 43563135 | 96 31535135 | 46 15515335 | 96 13413535 |
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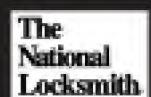


## 5001-8442 HONDA

### Keyblanks:

HPC/Silca HON43R  
 ILCO HD88  
 TAYLOR X172

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| 03 65513535 | 53 56315535 | 03 26611155 | 53 41133155 | 03 51335155 |
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## 5001-8442 HONDA

### Keyblanks:

HPC/Silca HON43R  
 ILCO HD88  
 TAYLOR X172

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| 52 62655355 | 82 43611336 | 02 66631336 | 02 33151356 |
| 53 62165555 | 83 63611336 | 03 21141336 | 03 53151356 |
| 54 64165555 | 84 41131336 | 04 11341336 | 04 15151356 |
| 55 16265555 | 85 61131336 | 05 14341336 | 05 35151356 |
| 56 36265555 | 86 14131336 | 06 44341336 | 06 65151356 |
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| 73 13411336 | 23 51551336 | 73 11356336 | 23 61115356 |
| 74 43411336 | 24 13551336 | 74 65556336 | 24 65115356 |
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|             | 49 26135336 | 99 41151356 | 49          |
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# Shop Talk

## Helpful Questions and Answers

**Written by all of the following authors:** Jack Roberts, Dave McOmie, Steve Spiwak, Don O'Shall, Shirl Schamp, and Robert Sieveking.

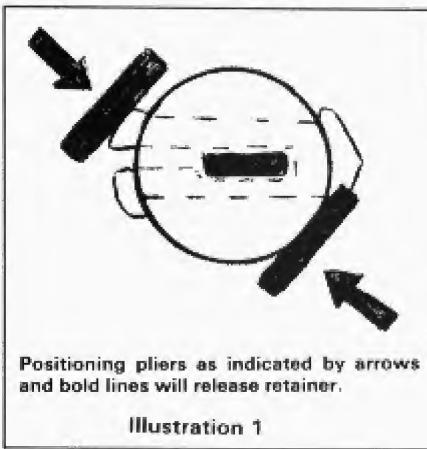
Send your locksmith questions, along with a self-addressed stamped envelope to: Shop Talk, The National Locksmith, 698 Bonded Pkwy., Streamwood, IL 60107.

*Q: How about a nice, non-destructive way of removing the retainers on Yale rim cylinders.*

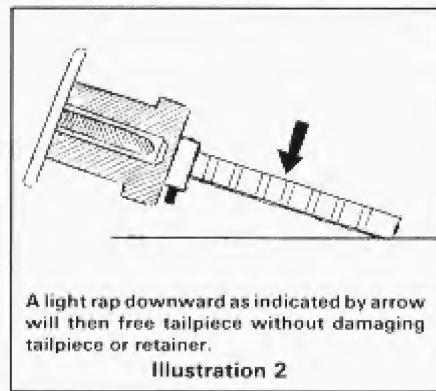
*Mike Ross  
New York*

*A: This type of retainer, used by Yale,*

and at one time by Medeco, can certainly be a perplexing one to deal with if you don't often run into it. However, servicing it can be simple. Use a pair of



6" slip joint pliers and put one nose of the pliers against the slope of the retainer as shown in illustration one, and the other nose of the pliers against the exposed portion of the plug. A gentle squeeze will release the retainer a



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distance of about 1/32nd to 1/16th of an inch.

While this may not seem like much, it is all that is necessary to allow you to gently tap out the retainer the rest of the way through its slot, by tapping on the side of the tailpiece (connecting bar), as shown in illustration two.

This method will not damage the retainer in any way, so the same one can be re-installed. 05

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*Q: When the keys are locked in the trunk of a 1988 Toyota Celica: How do you go about retrieving them. Can the trunk locked be picked.*

Woody Harrald  
Arizona

A: We have a policy in our shop. When taking a lockout call we ask if the keys are in the front or in the trunk of the car. If they're in the front, we quote the regular lockout charge. If they are in the trunk, we quote our trip charge plus the price of making a key. If we can pick it then the total job becomes labor. If not, then we simply add sales tax to the key portion. We feel this is

better than quoting low and then finding ourselves in a position of having to jack up the price and upset the customer.

You basically have three methods of opening the trunk on a Toyota Celica: pick, impression, or disassemble a compatible lock and make the key. To pick the lock, the only hints I can give you (other than practice a lot) are as follows. It's a wafer lock and it only has six wafers (one more than a gas cap). It turns to the right to open.

To impression a key remember that the wafers are thin and tend to bend easily. If your method of impressioning is to apply a little turning pressure and then rap the key with something on the top and the bottom, don't try! You'll surely damage something. You shouldn't apply anything more than a moderate hand pressure. If you feel you have trouble obtaining marks this way then I suggest you take a file and blade the edge of your key.

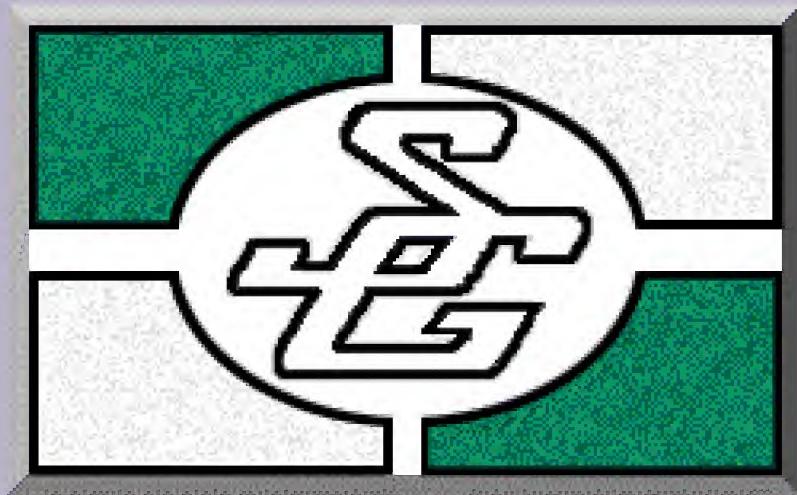
To disassemble a compatible lock could mean any of the other locks. On a Toyota all the locks are usually using the same key all the way around. (Unless they've had a lock changed.) Eliminate the idea of the glove lock; it

doesn't contain enough wafers. Surprisingly, the ignition itself could be the easiest. By inserting a hook into the keyway all the way to the rear, you can depress and release the plug from the lock. While depressing this retainer, insert an extractor into the keyway with the hook and pull outward. Once it has started out, it is simply a matter of raking it the rest of the way out. I suggest you keep the hook in the keyway until you've gotten to the bench with the plug to avoid any wafers from falling out and getting lost.

The door lock is an excellent lock to make a key from. Of course you do have to pull the panel. I might suggest that you should have replacement faceplates available. Generally you can find a code, but you still should be prepared to go all the way. I generally go for the passenger door on all cars. It seems to me that if there is going to be a code that's where I'll find it. Numerous times through the years I've pulled both doors on various cars and often found there to be no code on the driver's door and yet I find a code on the passenger door. I've never found any particular ruling saying its going to be that way, but that is my experience.

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02



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*Q: A customer brought me two small padlocks to be rekeyed. One lock was marked like the lock shown in illustration three. The other one had no markings.*



Illustration 3

*ing. They were both pin tumbler locks. I could not find a blank to fit the locks. The closest I could come to it was the Yale Y11 blank, however it was too big.*

*Also, the size of the lock was the same as illustration three.*

*Any information on these locks would be very helpful.* Jay Sard  
New Mexico

*A: Sorry Jay, I really can't be of much help to you on this lock except to perhaps suggest that you don't spend any more time with it and sell the customer a new one. My guess is that it is a cheap import and blanks probably are not available. If you are really interested in chasing it down, find out where your customer purchased the lock and, if local, see if the store has any more of them in stock and try one of the keys.*

*There is a good possibility that all of them are keyed alike. If not, you will at least have an idea of what the key looks like and maybe find a similar one on your board. You could then impression an operating key. As for rekeying, forget it!* 03

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*Q: I was recently called out to open a 1986 Pontiac Grand Am. When I arrived there was one person on the passenger side and the police on the driver's side, using Slim Jims. After obtaining a signed release form from damages, I started to open the vehicle. The rod to both outside door pulls had been knocked loose and the cams on the locks were both loose. I could move the linkage to the locks and also move the inside door handles but nothing happened to open the doors. My question is, when you encounter this type of situation is there any way you can open the vehicle.* Larry Teal  
New Mexico

*A: It's pathetic that this type of situation occurs. I sometimes wonder what would happen if on frequent occasions*

*when the police arrived on a call a locksmith was holding the suspects at bay with a gun. They would probably arrest us. It's a shame we can't arrest them.*

*Having the customer sign a waiver for damages was a good idea. We had a stamp made that they sign. We stamp it right on the invoice. The damages you allege they did is pretty hard to digest. To disconnect both linkages or both horizontal rods is plausible. But to disconnect all four, plus the cams themselves, almost puts this into a theoretical situation. So speaking in the abstract, I'm not totally sure, but the first thing I would try is using the Slim Jim on the latch itself.*

*If you connect with the latch unit at the same point where either the horiz-*

*ontal rod or the linkage from the lock connects, you can unlock the car. Then you would have to go back to the latch and connect where the linkage from the handle connects to open it. In theory this will work, but at best it would be very difficult.*

*Another approach would be to drill the lock totally out giving you access through the hole that held the lock (plus access through the top where you've wedged the window to manipulate the latch unit itself). Short of breaking a window that's my answer.*

*I have a tendency to think, especially since you never got it open to check your diagnoses, that maybe you missed something. Perhaps if the police do enough damage, the job will have to go to the dealer.* 02

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## Lori Lock

*Continued from page 28*

**6500 Series Interior Narrowline Latchset.** This series was designed to match the 6700 series exterior Narrowline lockset but used on inside doors with the solid brass escutcheon 1-3/16" wide instead of 1-1/2" wide. The regular tubular latch unit with 2", 2-3/8", and 2-3/4" backsets are used and the two design door knobs and the five design lever handles are available.

**Privacy Set.** The privacy set is the same as the passage set except that a 5/8" throw tubular deadbolt is added with the thumbturn inside and slotted button outside for emergency. It is available in 2-3/8" and 2-3/4" backsets only. 2-3/4" backsets only.

**Additional Advantages.** All of this solid brass designer door hardware is available in half or full dummy sets with US3 finish standard and US4, US5, US26 and US26D finishes available. These locksets are available keyed alike, keyed different, master keyed, grand master keyed and construction master keyed.

The entire Lori line is made in America at Lori Lock. It offers easy installation, beautiful solid forged designs and a multitude of keying possibilities. ■

## Ford Probe

*Continued from page 41*

ways easily. Our first thought was that there was a factory defect on that door, so we went to the passenger door. The same thing happened, so we went to the trunk with the same result. This left us no option but to finish the key by impressioning the ignition. Now you know why it would have been fruitless to have pulled the panel and disassembled the lock. The best we could figure is that all locks, except the ignition, work only on the four wafers found in the 4, 5, 6, and 7 positions.

I would like to take a moment before going to the ignition to comment on impressioning wafer locks, particularly on foreign cars. There are two methods of impressioning: One method is to use only vise grips or whatever you hold the key with and merely roll from side to side with a lifting and lowering movement. If this is your method and you are not brutal, go ahead, but if your method is to place a turning pressure on the key and then rap the key up and down with something, back off. The wafers bend easily and if you are lucky and don't bend them this time, remember there's always that one time.

We went to the ignition. The first order of business was to check the position of the wafers. As you can see in

photograph nine, Norm's thumb denotes the position as being on the bottom. Norm rolls his key when impressioning in a figure eight pattern. After his first pass, we discovered it marked very well. As we repeated the sequence again and again, positions 1, 2, and 3 walked right in, with good marks all the way. Number 8 never did mark nor did it impede the key from working once positions 1, 2, and 3 had impressioned in. Strangely enough, the factory key's eighth position appeared to be approximately a #4 depth. Maybe the tip cut was a factory cut only put there to ease key insertion. We found it to have no value (see photograph 10).

This means that all you have to impression in after obtaining the four from the glove is three positions. Three positions with only four possible depths you could almost progress to find the answer. We decided this will be our approach unless something easier comes along, which I doubt. ■

## Security Door Controls

*Continued from page 57*

Panic locks offer many advantages. They may be concealed in the header and go unnoticed unless the door is opened. They also provide a cost effective alternative to using electrified panic devices. These locks can be used in retrofit applications and can electrically control panic devices which may not be available electrically from the manufacturer.

Power supplies and other related control equipment such as key switches, push switches and basic access controls are supplied by electric lock manufacturers. Power supplies have about the same profit potential as electric locks, and are available with fire alarm relay connections, numbered terminal strips and installation instructions. Connected to the 115VAC current of the building, the power supply provides the lower voltage and correct amperage for the equipment. A battery back-up will provide emergency power for up to 48 hours or more if power is lost.

Building owners and tenants are justifiably security conscious today. Security has become an expected requirement of potential tenants. Although electric security usually is more expensive than mechanical locks, it offers so much greater security, plus safety, plus many types of control, that the electric future already is a necessary part of any forward looking lock company. ■

## Management

*Continued from page 64*

many duties to ensure that an optimum work environment exists which fosters motivation.

The locksmith business owner must provide direction for the company that all employees understand. He must treat his employees fairly and with great respect. He must ensure that the company's policies and procedures are understood and followed, and he must provide a fair pay and benefit package to make it all work. Without the "right" working conditions, even highly energized employees will quickly become demotivated.

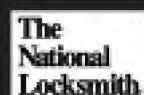
Along the way, the owner will develop a number of management aids to help him with managing his employees. These aids include job descriptions, performance appraisals, company policies, and procedures manuals. These management tools will be constantly changing as the new business manager experiments with what works best in his organization.

The final leadership duty that will affect a growing business is in the area of administration. The complexity of a larger business will dictate that a manager have better organizational and time management skills. Without a good grasp of these skills, a manager will find it nearly impossible to control and monitor his company's growth.

One of the new administrative skills which will prove crucial to the locksmith owner will be improved writing skills. Writing skills, as they apply to written bid and contract preparation for prospective commercial accounts, are an important part of selling commercial accounts. Commercial accounts will form the backbone of most large locksmith businesses; and having the appropriate invoices, forms, and bids will be vital to an owner's success.

Mastering all these skills—financial, personnel, managerial, administrative—will prove difficult for any one individual. The use of outside advisors or members of your own business will be necessary to assist the locksmith business owner in each of these areas.

The next article will discuss the marketing process and how it will affect the locksmith business. In addition, we will present an overview of where to acquire these diverse skills and what the locksmith industry in general is doing to help promote these business techniques. ■



## Digital Caliper

*Continued from page 106*

The imported locks that all locksmiths dislike pinning are also handled easily by using the probe and printer. Just measure each cell and print the record, then drop the appropriate pins. Considering the fact that I have seen imported cylinders vary as much as fifteen thousandths for a given cut this system can really save time.

The face of locksmithing has changed rapidly over the last ten years with a large emphasis on education and good business practice. In the next ten years I think the trend will continue and accelerate due in part to the addition of electronics into our business world. If you purchase one or all of the above items, I hope you enjoy the next step into the future as much as I have.

For more information contact: Continental Micro, P.O. Box 394, Park Ridge, IL 60068, (312) 692-3630. ■

## Masterkeying

*Continued from page 120*

photograph 7) and the pinning charts from the Interchangeable Core textbook, I was able to calculate the pins required for each cylinder core and load them. I used a "speed-loader" to load the drivers and control pins. The speed-loader I use was manufactured for Almont padlocks, but there are several others available that will do the job just as well.

All of these time-saving and error-resistant devices cut my time and effort considerably for the job, allowing me to re-install all the interior cores the following morning, and pin the exterior cores on the jobsite, having copied

*Continued from page 155*

|    |    |    |    |    |   |   |    |    |    |    |    |   |   |
|----|----|----|----|----|---|---|----|----|----|----|----|---|---|
| BP | 1  | 4  | 3  | 2  | 1 | 4 | BP | 3  | 6  | 3  | 6  | 3 | 2 |
| MP | 4  | 2  | 2  | 6  | 4 | 2 | MP | 2  | 2  | 4  | 2  | 2 | 4 |
| CP | -4 | -4 | -4 | -2 |   |   | CP | -6 | -6 | -4 | -2 |   |   |
| DR | 0  | 2  | 1  | 4  | 3 | 0 | DR | 0  | 2  | 1  | 4  | 3 | 0 |

Illustration 6: The decoded pins from both cores.



7. Pinning calculator program.

the pinning for these onto a sheet of paper the night before. (These were all to be keyed alike, since all the tenants would need to be able to access any of the outside doors. Everything else in the system had its own individual operating key).

I set up a key cabinet with code-cut keys for my customer to use when

copies were required, and wrote the key control policy for him, using my recommendations tempered with the guidelines we agreed on together. The key control policy sets up the conditions under which re-keying of an individual core or a group of cores, or even the entire system must be considered, as well as covering recommendations on the issuance of keys and maintenance of key control records.

The policy, the key cabinet, the keys in individual #1 coin envelopes for each room, the master key and my bill were on the customer's desk by two o'clock that afternoon.

As in the past, he made out the check on the spot, and we both had a much better day than we had the day before. The satisfaction of completion of a tough job somehow makes it all seem worthwhile...almost. The check covered the rest. ■

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